State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

04/28/03

CERTIFIED MAIL

RE: Final Title V Chapter 3745-77 permit

04-48-00-0013
Johns Manville - Waterville 07
STEVEN SHELT
6050 River Road
WATERVILLE, OH 43566-9731

Dear STEVEN SHELT:

Enclosed is the Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully.

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Review Appeals Commission within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. It is also requested by the Director that a copy of the appeal be served upon the Environmental Enforcement Section of the Office of the Attorney General. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street
Room 300
Columbus, Ohio 43215

If you have any questions, please contact Toledo Div of Environmental Services.

Very truly yours,

Michael W. Ahern

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

cc: Toledo Div of Environmental Services
File, DAPC PMU

State of Ohio Environmental Protection Agency

FINAL TITLE V PERMIT

Issue Date: **04/28/03**	Effective Date: **05/19/03**	Expiration Date: **05/19/08**

This document constitutes issuance of a Title V permit for Facility ID: 04-48-00-0013 to:
Johns Manville - Waterville 07
7500 DUTCH ROAD PLANT 07
7500 Dutch Road (43566)
WATERVILLE, OH 43566-9731

Emissions Unit ID (Company ID)/Emissions Unit Activity Description

P014 (9272 Mat Machine)
MAT MACHINE OVEN 9272

P018 (300X LINE2)
300X LINE 2 (MELTERS 3&4)

P019 (300X LINE 1)
300X LINE 1 (MELTERS 1&2)

P035 (Microstrand Source 1A)
This process operates by melting glass using natural gas to make glass fibers

P036 (Microstrand Source 1B)
This process operates by melting glass using natural gas to make glass fibers

P037 (Microstrand Source 1C)
This process operates by melting glass using natural gas to make glass fibers

P038 (Microstrand Source 1D)
This process operates by melting glass using natural gas to make glass fibers

P039 (Microstrand Source 1E)
This process operates by melting glass using natural gas to make glass fibers

P040 (Microstrand Source 1F)
This process operates by melting glass using natural gas to make glass fibers

P041 (Microstrand Source 2A)
This process operates by melting glass using natural gas to make glass fibers

P042 (Microstrand Source 2B)
This process operates by melting glass using natural gas to make glass fibers

P043 (Microstrand Source 2C)
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P044 (Microstrand Source 2D)
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P045 (Microstrand Source 2E)
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P046 (Microstrand Source 2F)
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P047 (Microstrand Source 3A)
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P048 (Microstrand Source 3B)
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P049 (Microstrand Source 3C)
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P050 (Microstrand Source 3D)
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P051 (Microstrand Source 3E)
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P052 (Microstrand Source 3F)
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P053 (Microstrand Source 4A)
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P054 (Microstrand Source 4B)
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P055 (Microstrand Source 4C)
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P056 (Microstrand Source 5A)
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P057 (Microstrand Source 5B)
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P058 (Microstrand Source 5C)
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P062 (Microstrand Source 7A)
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P063 (Microstrand Source 7B)
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P064 (Microstrand Source 7C)
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P065 (Microstrand Source 8A)
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P066 (Microstrand Source 8B)
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P067 (Microstrand Source 8C)
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P068 (Microstrand Source 9A)
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P069 (Microstrand Source 9B)
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P070 (Microstrand Source 9C)
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P071 (Microstrand Source 10A)
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P072 (Microstrand Source 10B)
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P073 (Microstrand Source 10C)
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P074 (Microstrand Source 11A)
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P076 (Microstrand Source 11C)
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P077 (Microstrand Source 12A)
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P083 (Microstrand Source 14A)
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P086 (Microstrand Source 15A)
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P107 (Microstrand Source 22A)
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P112 (Microstrand Source 24A)
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P113 (Microstrand Source 24B)
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P114 (Microstrand Source 25A)
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P197 (Microstrand Source 39G)
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P198 (Microstrand Source 40A)
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P199 (Microstrand Source 40B)
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P200 (Microstrand Source 40C)
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P201 (Microstrand Source 40D)
This process operates by melting glass using natural gas to make glass fibers

P202 (Microstrand Source 40E)
This process operates by melting glass using natural gas to make glass fibers

P203 (Microstrand Source 40F)
This process operates by melting glass using natural gas to make glass fibers

P204 (Microstrand Source 40G)
This process operates by melting glass using natural gas to make glass fibers

P239 (300X LINE 3)
300X LINE 3 Melter 5

P240 (300X LINE 4)
300X LINE 4 melter 6

P242 (Microstrand Source bld 9 - 1A)
This process operates by melting glass using natural gas to make glass fibers

P243 (Microstrand Source bld 9 - 1B)
This process operates by melting glass using natural gas to make glass fibers

P244 (Microstrand Source bld 9 - 1C)
This process operates by melting glass using natural gas to make glass fibers

P245 (Microstrand Source bld 9 - 1D)
This process operates by melting glass using natural gas to make glass fibers

P246 (Microstrand Source bld 9 - 1E)
This process operates by melting glass using natural gas to make glass fibers

P247 (Microstrand Source bld 9 - 1F)
This process operates by melting glass using natural gas to make glass fibers

P248 (Microstrand Source bld 9 - 1G)
This process operates by melting glass using natural gas to make glass fibers

P249 (Microstrand Source bld 9 - 1H)
This process operates by melting glass using natural gas to make glass fibers

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Toledo Div of Environmental Services
348 South Erie Street
Toledo, OH 43602-1633
(419) 936-3015

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

1. Monitoring and Related Record Keeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.
ii. The date(s) analyses were performed.
iii. The company or entity that performed the analyses.
iv. The analytical techniques or methods used.
v. The results of such analyses.
vi. The operating conditions existing at the time of sampling or measurement.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

c. The permittee shall submit required reports in the following manner:

i. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

ii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) with respect to emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**

(a) Written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations ; (ii) the probable cause of such deviations; and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Part III of this Title V permit, the written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred,

describe each deviation, and provide the magnitude and duration of each deviation. These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations. See B.6 below if no deviations occurred during the quarter.
(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) ,(ii) and (iii))

(b) Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the deviation reporting requirements for this Title V permit, written reports that identify each malfunction that occurred during each calendar quarter shall be submitted, at a minimum, quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters.

In identifying each deviation caused by a malfunction, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Also, if a deviation caused by a malfunction is identified in a written report submitted pursuant to paragraph (a) above, a separate report is not required for that malfunction pursuant to this paragraph. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing, at a minimum, on a quarterly basis.

Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation, operational restriction, and control device operating parameter limitation shall be reported in the same manner as described above for malfunctions. These written reports for malfunctions (and scheduled maintenance projects, if appropriate) shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations.
(Authority for term: OAC rules 3745-77-07(A)(3)(c)(iii))

iii. **For monitoring, record keeping, and reporting requirements:**
Written reports that identify any deviations from the federally enforceable monitoring, record keeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year, for the previous six calendar months. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii)

pertaining to the reporting of any deviations related to the monitoring, record keeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no deviations occurred during that period.
(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii))

iv. Each written report shall be signed by a responsible official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."
(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit(s) or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).
(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iii))

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.
(Authority for term: OAC rule 3745-77-07(A)(4))

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.
(Authority for term: OAC rule 3745-77-07(A)(5))

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
(Authority for term: OAC rule 3745-77-07(A)(6))

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is

grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

(Authority for term: OAC rule 3745-77-07(A)(7))

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

(Authority for term: OAC rule 3745-77-07(A)(8))

8. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))

9. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

10. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

11. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

(Authority for term: OAC rule 3745-77-07(B))

12. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:

i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.

ii. Compliance certifications shall include the following:

(a) An identification of each term or condition of this permit that is the basis of the certification.

(b) The permittee's current compliance status.

(c) Whether compliance was continuous or intermittent.

(d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.

(e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

13. Permit Shield

a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

14. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

15. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

(Authority for term: OAC rule 3745-77-07(G))

16. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.

b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as

insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).

d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(For purposes of clarification, the permittee can refer to Engineering Guide #63 that is available in the STARSHIP software package.)
(Authority for term: OAC rule 3745-77-07(I))

17. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.
(This term is provided for informational purposes only.)

18. Insignificant Activities

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.
(Authority for term: OAC rule 3745-77-07(A)(1))

19. Permit to Install Requirement

Prior to the “installation” or “modification” of any “air contaminant source,” as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.
(Authority for term: OAC rule 3745-77-07(A)(1))

20. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.
(Authority for term: OAC rule 3745-77-07(A)(1))

B. *State Only Enforceable Section*

1. Reporting Requirements Related to Monitoring and Record Keeping Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

2. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

3. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or

revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

4. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

5. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

6. Additional Reporting Requirements When There Are No Deviations of <u>Federally Enforceable</u> Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforcable Section

None

B. State Only Enforceable Section

1. The following insignificant emissions units are located at this facility:

B005 - Lockheed boiler;
P010 - HPQ leach tanks;
P011 - quartz drying ovens (3);
P016 - Lockheed picking transfer loading;
P017 - met edge trim machine;
P021 - 2 meter melting and transfer system;
P022 - electric heat treat oven HPQ;
P023 - maintenance sandblaster;
P024 - sliver exhaust;
P025 - sliver dust collector;
P026 - sliver fuzz vacuum system;
P027 - wood shop cyclone;
P028 - quartz firing oven, <10 mmBtu/hr;
P029 - die pad oven, <1 mmBtu/hr;
P031 - experimental melter and baler;
Z001 - mat scrap collector;
Z002 - glass tippers/handling;
Z004 - burner test stand;
Z012 - LOI oven mats;
Z014 - bench scale machining;
Z019 - cold cleaners;
Z023 - leach tank;
Z500 - no. 4 AMU king;
Z501 - no. 7 AMU king;
Z502 - no. 8 AMU king;
Z503 - no. 2 AMU king;
Z504 - no. 9 AMU king;
Z505 - no. 10 AMU king;
Z506 - no. 1 AMU king;
Z507 - no. 3 AMU king;
Z508 - no. 5 AMU king;
Z509 - no. 6 AMU king;
Z510 - mat dept. king;
Z511 - sliver king;
Z512 - 17 king #35;
Z513 - 17 king #36;
Z514 - 17 king #37;
Z515 - 17 king #38;
Z516 - 17 king #39; and
Z517 - 17 king #40.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within a permit to install for the emissions unit.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 9272 Mat Machine (P014)

Activity Description: MAT MACHINE OVEN 9272

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
non-woven fiber mat line with mat machine 9272 This emissions unit has 4 distinct groups of emissions points. The applicator section and curing oven, are exhausted to an incinerator. The oven chain emissions (the transfer point from the applicator to the curing oven) are uncontrolled and egress through a pair of stacks to the atmosphere. The forming section emissions (where chopped strands of fiber are mixed in a water based slurry of cellulose and surfactant and pumped onto a 150-inch forming belt) are uncontrolled and egress through a stack to the atmosphere. The basement area emissions (where the mixing of the solutions used in the forming and applicator sections of the process occurs) egress uncontrolled through a stack to the atmosphere.	OAC rule 3745-31-05(A)(3) (PTI 04-1000)	1.8 lbs/hr of carbon monoxide (CO) 7.8 tons of CO per rolling, 12-month period 0.73 lb/hr of nitrogen oxides (NOx) 3.2 tons of NOx per rolling, 12-month period 1.2 lbs/hr of particulate emissions 5.1 tons of particulate emissions per rolling, 12-month period 0.03 lb/hr of sulfur dioxide (SO2) 0.13 ton of SO2 per rolling, 12-month period 5.3 lbs/hr of organic compounds (OC) 23 tons of OC per rolling, 12-month period 3.3 lbs/hr of formaldehyde 14.5 tons of formaldehyde per rolling, 12-month period 90% or greater destruction efficiency for OC in the incinerator See A.I.2.a, A.I.2.d, and A.I.2.e below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-11(B)(1)	See A.I.2.b below.
	OAC rule 3745-18-06(A)	See A.I.2.b below.
	OAC rule 3745-21-07(G)(1)	exempt
		See A.II.4 below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.
	40 CFR Part 63, Subpart HHHH	See sections A.I.2.f and A.I.2.g.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), OAC rule 3745-21-07(G)(1), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2.b The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-1000.

2.d The allowable emission rates are the total allowable emission rates for all of the emission points associated with this emission unit.

2.e The OC and formaldehyde emission limitations are based on reported fiber slurry compositions from emissions testing performed on November 15, 1990. The report was submitted in January of 1991 as part of a PTI modification application after the incinerator was installed on this emissions unit. Any change in operation and any modification to this process that may result in an increase in emissions must be reported to the Toledo Division of Environmental Services, and the permittee shall obtain a permit to install prior to the change or modification.

2.f [40 CFR 63.2985]
The permittee shall comply with the requirements of the emission limitations and work practice standards for existing sources in 40 CFR Part 63, Subpart HHHH by no later than April 11, 2005. The requirements of 40 CFR Part 63, Subpart HHHH are identified at the beginning of each applicable term and condition with a Part 63 reference in brackets. These terms and conditions shall not become applicable until 40 CFR Part 63, Subpart HHHH becomes effective on April 11, 2005.

2.g [40 CFR 63.2983]
The permittee shall reduce uncontrolled formaldehyde emissions from the mat oven by at least 96%.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

II. Operational Restrictions (continued)

2. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.

NOTE: This term and condition shall be applicable until 40 CFR Part 63, Subpart HHHH becomes effective on April 11, 2005. On that date, the permittee shall comply with section A.II.6.

3. The maximum operating rate of this emission unit shall not exceed 237 tons per day of fiber slurry.

4. The permittee shall not employ any photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit.

5. [40 CFR 63.2984(a)]
The permittee shall maintain operating parameters within the established limits or ranges specified in the operation, maintenance, and monitoring (OMM) plan as described in section A.III.21 [40 CFR 63.2987]. If there is a deviation of any of the specified parameters from the limit or range specified in the OMM plan, the permittee shall address the deviation according to section A.II.10 [40 CFR 63.2984(b)]. The permittee shall comply with the operating limits specified in sections A.II.6 through A.II.9.

6. [40 CFR 63.2984(a)(1)]
The permittee shall operate the catalytic thermal oxidizer so that the average operating temperature in any 3-hour block period does not fall below the temperature established during the performance test and specified in the OMM plan.

7. [40 CFR 63.2984(a)(2)]
The permittee shall not use a resin with a free-formaldehyde content greater than that of the resin used during the most recent performance test that demonstrated compliance and as specified in the OMM plan.

8. [40 CFR 63.2984(a)(3)]
The permittee shall operate the wet-formed fiberglass mat production process so that the average urea formaldehyde resin solids application rate in any 3-hour block period does not exceed the average application rate achieved during the most recent performance test that demonstrated compliance and as specified in the OMM plan.

9. [40 CFR 63.2984(a)(4)]
If the permittee uses an add-on control device other than a thermal oxidizer or wishes to monitor an alternative parameter and comply with a different operating limit, the permittee shall obtain approval for the alternative monitoring under 40 CFR 63.8(f). The permittee shall include the approved alternative monitoring and operating limits in the OMM plan as specified in 40 CFR 63.2987.

10. [40 CFR 63.2984(b)]
When during a period of normal operations the permittee detects that an operating parameter deviates from the limit or range established in section A.II.5 through A.II.9, the permittee shall initiate corrective actions within 1 hour according to the provisions of the OMM plan. During periods of start up, shut down, or malfunction the permittee shall follow the startup, shutdown, and malfunction plan (SSMP). The corrective actions shall be completed in an expeditious manner as specified in the OMM plan or SSMP.

11. [40 CFR 63.2984(d)]
The permittee shall include the operating limits or ranges specified in sections A.II.6 through A.II.9 in the OMM plan. The permittee shall develop an OMM plan and operate according to the OMM plan at all times.

II. Operational Restrictions (continued)

12. [40 CFR 63.2984(e)]
If the permittee uses a thermal oxidizer or other control device to achieve the emission limits in section A.I.2.g [40 CFR 63.2983], the permittee shall capture and convey the formaldehyde emissions from each drying and curing oven according to the procedures in chapters 3 and 5 of "Industrial Ventilation: A Manual of Recommended Practice" (23rd Edition). This publication is incorporated by reference in 40 CFR 63.3003.

13. [40 CFR 63.2986(b)]
The permittee shall comply with the limits specified in sections A.II.5 through A.II.12 and A.III.15 [40 CFR 63.2984]. These operating limits prescribe the requirements for demonstrating continuous compliance based on the OMM plan. The permittee shall begin complying with the operating limits on the date by which the permittee must complete the initial performance test.

14. [40 CFR 63.2986(e)]
The permittee shall prepare and follow a written OMM plan as specified in section A.III.21 (40 CFR 63.2987).

15. [40 CFR 63.2986(g)]
The permittee shall comply with the requirements specified below.

a. The permittee shall be in compliance with the emission limit in section A.I.2.g (40 CFR 63.2983) and the operating limits in sections A.II.5 through A.II.12 (40 CFR 63.2984) at all times, except during periods of startup, shutdown, or malfunction.

b. The permittee shall always operate and maintain this emissions unit, including air pollution control and monitoring equipment, according to the provisions in 40 CFR 63.6(e)(1).

c. The permittee shall develop and implement a written SSMP according to the provisions in 40 CFR 63.6(e)(3). The SSMP must address the startup, shutdown, and corrective actions taken for malfunctioning process and air pollution control equipment.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall operate and maintain continuous temperature monitors and recorder(s) which measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information each day:

a. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was less than 800 degrees Fahrenheit;

b. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance; and

c. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

3. The permittee shall maintain daily records of the total fiber slurry throughput and organic content (based upon formulation data).

III. Monitoring and/or Record Keeping Requirements (continued)

4. For each day during which the permittee employs a photochemically reactive material, the permittee shall maintain a record of the type and quantity of photochemically reactive material employed in this emissions unit.

5. The permittee shall maintain monthly records of the hours of operation for this emissions unit and the rolling, 12-month summation of the hours of operation.

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

8. [40 CFR 63.2996]
The permittee shall monitor the urea-formaldehyde resin solids application rate. On each day of operation, the permittee shall calculate and record the average lb/hr application rate for each product manufactured during that day.

9. [40 CFR 63.2996]
The permittee shall monitor the resin free-formaldehyde content for each lot of resin purchased. The permittee shall measure (in accordance with 40 CFR Part 63, Subpart HHHH, Appendix A) and record the value for each lot used during the operating day.

10. [40 CFR 63.2996]
The permittee shall monitor the loss-on-ignition (as defined in 40 CFR 63.3004). The permittee shall measure (in accordance with 40 CFR Part 63, Subpart HHHH, Appendix B) and record the loss-on-ignition at least once per day, for each product manufactured during that day.

11. [40 CFR 63.2996]
The permittee shall monitor the UF-to-latex ratio in the binder. The permittee shall measure and record, for each batch of binder prepared during the operating day, the value of the UF-to-latex ratio.

12. [40 CFR 63.2996]
The permittee shall monitor the weight of the final mat produced per square (lb/roofing square). The permittee shall measure and record this parameter for each product manufactured during the operating day.

13. [40 CFR 63.2996]
The permittee shall monitor the average nonwoven wet-formed fiberglass mat production rate (roofing squares per the hour). The average value for each product shall be recorded for each product manufactured during the operating day.

III. Monitoring and/or Record Keeping Requirements (continued)

14. [40 CFR 63.2996]
The permittee shall monitor any other parameters, in addition to sections A.III.8 through A.III.13, that are specified in the OMM plan.

15. [40 CFR 63.2984(c)]
The permittee shall maintain and inspect control devices according to the procedures specified in the OMM plan.

16. [40 CFR 63.2998]
The permittee shall maintain records according to the procedures specified in 40 CFR 63.10.

The permittee shall maintain the following records for this emissions unit:

a. All records required by 40 CFR 63.10. Table 2 of 40 CFR Part 63, Subpart HHHH presents the applicable requirements of the general provisions.

b. The OMM plan.

c. Records of values of monitored parameters listed in table 1 of 40 CFR Part 63, Subpart HHHH to show continuous compliance with each operating limit specified in table 1 of 40 CFR Part 63, Subpart HHHH.

d. Records of maintenance and inspections performed on the control devices.

e. If an operating parameter deviation occurs, the permittee shall record the following information:

i. the date, time, and duration of the operating parameter deviation;
ii. a brief description of the cause of the operating parameter deviation;
iii. the dates and times at which corrective actions were initiated and completed;
iv. a brief description of the corrective actions taken to return the parameter to the limit or to within the range specified in the OMM plan; and
v. a record of whether the deviation occurred during a period of startup, shutdown, or malfunction.

f. The permittee shall maintain all of the records specified in 40 CFR 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

g. If you operate your process or control device under alternative operating condition and have established operating limits for each condition as specified in 40 CFR 63.2989(c), then you must keep records of the date and time you changed operations from one condition to another, the condition under which you are operating, and the applicable operating limits for that condition.

17. [40 CFR 63.2999]
a. The permittee shall maintain each record required by this permit and 40 CFR Part 63, Subpart HHHH for 5 years. The permittee shall maintain the most recent 2 years of records at the facility. The remaining 3 years of records may be retained offsite.

b. The permittee shall maintain records in a readily available format that can be easily inspected and reviewed. The permittee may keep the records on paper or an alternative media, such as microfilm, computer, computer disks, magnetic tape, or on microfiche.

18. [40 CFR 63.2986(a)]
The permittee shall maintain and operate a thermal oxidizer or other control device or implement a process modification that reduces formaldehyde emissions from each drying and curing oven to the emission limits specified in section A.I.2.g (40 CFR 63.2983).

III. Monitoring and/or Record Keeping Requirements (continued)

19. [40 CFR 63.2986(d)]
The permittee shall install, calibrate, maintain, and operate devices that monitor the parameters specified in the OMM plan at the frequency specified in the plan. All continuous parameter monitoring systems must be installed and operating no later than the applicable compliance date specified in section A.I.2.f (40 CFR 63.2985).

20. [40 CFR 63.2986(f)]
The permittee shall comply with the monitoring, record keeping, notification, and reporting requirements of 40 CFR Part 63, Subpart HHHH as specified in sections A.III and A.IV and as required by 40 CFR 63.2996 through 63.3000.

21. [40 CFR 63.2987(a)]
a. The permittee shall, in the OMM, prescribe the monitoring that will be performed to ensure compliance with the emission limitations. Minimum monitoring requirements are listed in table 1 of 40 CFR Part 63, Subpart HHHH. The OMM plan must specify the items listed below:

i. Each process and control device to be monitored, the type of monitoring device that will be used, and the operating parameters that will be monitored.

ii. A monitoring schedule that specifies the frequency that the parameter values will be determined and recorded.

iii. The operating limits or ranges for each parameter that represent continuous compliance with the emission limit in section A.I.2.g (40 CFR 63.2983). Operating limits and ranges must be based on values of the monitored parameters recorded during performance tests.

[40 CFR 63.2987(b)]
b. The permittee shall establish routine and long-term maintenance and inspection schedules for each control device. The permittee shall incorporate in the schedules the control device manufacturer's recommendations for maintenance and inspections or equivalent procedures. If a thermal oxidizer is used, the maintenance schedule must include procedures for annual or more frequent inspection of the thermal oxidizer to ensure that the structural and design integrity of the combustion chamber is maintained. At a minimum, the permittee shall meet the requirements specified below:

i. Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation. Clean pilot sensor if necessary.

ii. Ensure proper adjustment of combustion air and adjust if necessary.

iii. Inspect, when possible, all internal structures (such as baffles) to ensure structural integrity per the design specifications.

iv. Inspect dampers, fans, and blowers for proper operation.

v. Inspect motors for proper operation.

vi. Inspect, when possible, combustion chamber refractory lining. Clean and repair or replace lining if necessary.

vii. Inspect the thermal oxidizer shell for proper sealing, corrosion, and hot spots.

viii. For the burn cycle that follows the inspection, document that the thermal oxidizer is operating properly and make any necessary adjustments.

ix. Generally observe whether the equipment is maintained in good operating condition.

x. Complete all necessary repairs as soon as practicable.

III. Monitoring and/or Record Keeping Requirements (continued)

[40 CFR 63.2987(c)]
c. The permittee shall establish procedures for responding to operating parameter deviations. At a minimum, the procedures must include the information specified below:

i. Procedures for determining the cause of the operating parameter deviation.

ii. Actions for correcting the deviation and returning the operating parameters to the allowable ranges or limits.

iii. Procedures for recording the date and time that the deviation began and ended, and the times corrective actions were initiated and completed.

[40 CFR 63.2987(d)]
d. The OMM plan must specify the record keeping procedures to document compliance with the emissions and operating limits. Table 1 of 40 CFR Part 63, Subpart HHHH establishes the minimum record keeping requirements.

22. [40 CFR 63.2989a]
Changes to the operating limits or ranges in the OMM plan require a new performance test.

a. In order to revise the ranges or levels established for the operating limits specified in sections A.II.5 through A.II.12 (40 CFR 63.2984), the permittee shall meet the following:

i. Submit a notification of performance test to the Administrator as specified in 40 CFR 63.7(b) to revise the operating ranges or limits.

ii. After completing the performance test to demonstrate that compliance with the emission limit can be achieved at the revised levels of the operating limits, the permittee shall submit the performance test results and the revised operating limits as part of the notification of compliance status required under 40 CFR 63.9(h).

[40 CFR 63.2989b]
b. If the permittee is only revising the inspection and maintenance procedures in the OMM plan that are specified in section A.III.21.b (40 CFR 63.2987(b)), there is no need to conduct a new performance test.

[40 CFR 63.2989c]
c. If the permittee plans to operate this emissions unit or control device under alternative operating conditions and does not wish to revise the OMM plan for this emissions unit when a change in operating conditions is made, the permittee shall perform a separate compliance test to establish operating limits for each condition. The permittee can then include the operating limits for each condition in the OMM plan. After completing the performance tests, the permittee shall record the date and time when the change in operations from one condition to another was made, the condition under which the emissions unit is operating, and the operating limits that apply under that condition. If the permittee can perform a single performance test that establishes the most stringent operating limits that cover all alternative operating conditions, then the permittee does not need to comply with the provisions of this paragraph.

23. [40 CFR 63.2994(a)]
a. Before conducting the performance test, the permittee shall take the following steps:

i. Install and calibrate all process equipment, control devices, and monitoring equipment.

ii. Conduct a performance evaluation of the continuous monitoring system (CMS) according to 40 CFR 63.8(e) which specifies the general requirements and requirements for notifications, the site-specific performance evaluation plan, conduct of the performance evaluation, and reporting of performance evaluation results.

III. Monitoring and/or Record Keeping Requirements (continued)

[40 CFR 63.2994(b)]
b. If this emissions unit is controlled by use of a thermal oxidizer, the temperature monitoring device must meet the following performance and equipment specifications :

i. The temperature monitoring device must be installed either at the exit of the combustion zone of each thermal oxidizer, or at the location specified by the manufacturer. The temperature monitoring device must also be installed in a location before any heat recovery or heat exchange equipment, and it must remain in the same location for both the performance test and the continuous monitoring of temperature.

ii. The recorder response range must include zero and 1.5 times the average temperature required in section A.II.6 [40 CFR 63.2984(a)(1)].

iii. The measurement method or reference method for calibration must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or an alternate reference subject to the approval of the Administrator.

24. [40 CFR 63.2997(a)]
a. If formaldehyde emissions are controlled using a thermal oxidizer, the permittee shall meet the following requirements:

i. Install, calibrate, maintain, and operate a device to monitor and record continuously the thermal oxidizer temperature at the exit of the combustion zone before any substantial heat exchange occurs or at the location consistent with the manufacturer's recommendations.

ii. Continuously monitor the thermal oxidizer temperature and determine and record the average temperature in 15-minute and 3-hour block averages. The permittee may determine the average temperature more frequently than every 15 minutes and every 3 hours, but not less frequently.

[40 CFR 63.2997(b)]
b. If formaldehyde emissions are controlled by process modifications or a control device other than a thermal oxidizer, the permittee shall install, calibrate, maintain, and operate devices to monitor the parameters established in the OMM plan at the frequency established in the plan.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time when the emissions unit was in operation during which the average temperature of the exhaust gases immediately before the catalyst bed or the average temperature difference across the catalyst bed did not comply with the temperature limitations specified above.

3. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the fiber slurry throughput exceeded 237 tons per day in this emissions unit.

4. The permittee shall submit deviation (excursion) reports that identify each day when a photochemically reactive material is employed in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Unless specified otherwise, the deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

IV. Reporting Requirements (continued)

7. [40 CFR 63.3000]
The permittee shall submit all notifications and reports required by the applicable general provisions and sections A.IV.7 through A.IV.11 (40 CFR 63.3000). Table 2 of 40 CFR Part 63, Subpart HHHH presents the applicable requirements of the general provisions.

8. [40 CFR 63.3000]
The permittee shall submit the notification of compliance status, including the performance test results, the operating limits or ranges as determined during the performance test, and other information specified in 40 CFR 63.9(h), before the close of business on the 60th calendar day after completing the performance test according to 40 CFR 63.10(d)(2).

9. [40 CFR 63.3000]
The permittee shall submit semiannual compliance reports according to the following requirements:

a. Unless the Administrator has agreed to a different schedule for submitting reports under 40 CFR 63.10(a), the permittee shall deliver or postmark each semiannual compliance report no later than 30 days following the end of each semiannual reporting period. The first semiannual reporting period begins on the compliance date for the affected source and ends on June 30 or December 31, whichever date immediately follows the compliance date. Each subsequent semiannual reporting period for which the permittee shall submit a semiannual compliance report begins on July 1 or January 1 and ends 6 calendar months later. As required by 40 CFR 63.10(e)(3), the permittee shall begin submitting quarterly compliance reports if the permittee deviates from the emission limit in section A.I.2.g (40 CFR 63.2983) or the operating limits in sections A.II.5 through A.II.12 (40 CFR 63.2984).

b. For each affected source that is subject to permitting regulations pursuant to 40 CFR Part 70 or 71, and for which the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), the permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in section A.IV.9.a.

c. The semiannual compliance report must contain the following information:

i. company name and address;
ii. statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report;
iii. date of the report and beginning and ending dates of the reporting period;
iv. a summary of the total duration of continuous parameter monitoring system downtime during the semiannual reporting period and the total duration of continuous parameter monitoring system downtime as a percent of the total source operating time during that semiannual reporting period;
v. the date of the latest continuous parameter monitoring system certification or audit; and
vi. a description of any changes in the wet-formed fiberglass mat manufacturing process, continuous parameter monitoring system, or add-on control device since the last semiannual reporting period.

d. If there were no deviations from the emission limit in section A.I.2.g (40 CFR 63.2983) or the operating limits in sections A.II.5 through A.II.12 (40 CFR 63.2984), the semiannual compliance report must include a statement to that effect. If there were no periods during which the continuous parameter monitoring systems were out-of-control as specified in 40 CFR 63.8(c)(7), the semiannual compliance report must include a statement to that effect.

IV. Reporting Requirements (continued)

e. If there was a deviation from the emission limit in section A.I.2.g (40 CFR 63.2983) or an operating limit in sections A.II.5 through A.II.12 (40 CFR 63.2984), the semiannual compliance report must contain the following information:

i. the date and time that each malfunction started and stopped;
ii. the date and time that each continuous parameter monitoring system was inoperative, except for zero (low-level) and high-level checks;
iii. the date, time, and duration that each continuous parameter monitoring system was out-of-control, including the information in 40 CFR 63.8(c)(8);
iv. the date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period;
v. the date and time that corrective actions were taken, a description of the cause of the deviation, and a description of the corrective actions taken;
vi. a summary of the total duration of each deviation during the semiannual reporting period and the total duration as a percent of the total source operating time during that semiannual reporting period;
vii. a breakdown of the total duration of the deviations during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes and other unknown causes;
viii. a brief description of the process units; and
ix. a brief description of the continuous parameter monitoring system.

10. [40 CFR 63.3000]
The permittee shall submit reports of performance test results for add-on control devices no later than 60 days after completing the tests as specified in 40 CFR 63.10(d)(2). The permittee shall include in the performance test reports the values measured during the performance test for the parameters listed in table 1 of 40 CFR Part 63, Subpart HHHH and the operating limits or ranges to be included in the OMM plan for this emissions unit. If the permittee complies by use of a thermal oxidizer, the permittee shall include 15-minute thermal oxidizer temperature averages and the average for the three 1-hour test runs.

11. [40 CFR 63.3000]
If this emissions unit has a startup, shutdown, or malfunction during the semiannual reporting period, the permittee shall submit the reports specified in 40 CFR 63.10(d)(5).

12. [40 CFR 63.2990]
With the approval of the Administrator, the permittee may conduct short-term experimental production runs during which this emissions unit's operating parameters deviate from the operating limits. Experimental runs may include, but are not limited to, runs using resin with a higher free-formaldehyde content than specified in the OMM plan, or using experimental pollution prevention techniques. To conduct a short-term experimental production run, the permittee shall complete the requirements specified in sections A.IV.12.a and A.IV.12.b.

[40 CFR 63.2990a]

a. Prepare an application to the Administrator for approval to conduct the experimental production runs. This application must include the following items:

i. the purpose of the experimental production run;

ii. identification of the affected line;

iii. an explanation of how the operating parameters will deviate from the previously approved ranges and limits;

iv. the duration of the experimental production run;

v. the date and time of the experimental production run; and

vi. a description of any emission testing to be performed during the experimental production run.

IV. Reporting Requirements (continued)

[40 CFR 63.2990b]
b. The permittee shall submit the application to the Administrator for approval at least 30 days before the permittee conducts the experimental production run.

[40 CFR 63.2990c]
c. If the permittee conducts such experimental production runs without first receiving approval from the Administrator, then the permittee shall conduct a performance test under those same experimental production run conditions to show that the permittee was in compliance with the formaldehyde emission limit in section A.I.2.g (40 CFR 63.2983).

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

1.2 lbs/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

5.1 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly particulate emission limitation of 1.2 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

1.8 lbs/hr of CO

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 10.

V. Testing Requirements (continued)

1.e Emission Limitation:

7.8 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly CO emission limitation of 1.8 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.73 lb/hr of NOx

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 7.

1.g Emission Limitation:

3.2 tons of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly NOx emission limitation of 0.73 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

5.3 lbs/hr of OC

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.i Emission Limitation:

23 tons of OC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly OC emission limitation of 5.3 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

0.03 lb/hr of SO2

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 6.

V. Testing Requirements (continued)

1.k Emission Limitation:

0.13 ton of SO2 per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly SO2 emission limitation of 0.03 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.l Emission Limitation:

3.3 lbs/hr of formaldehyde

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 63, Appendix A, Method 316.

1.m Emission Limitation:

14.5 tons of formaldehyde per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly formaldehyde emission limitation of 3.3 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.n Emission Limitation:

uncontrolled formaldehyde emissions from the mat oven reduced by at least 96%

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in sections A.V.3 through A.V.7.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates, and OC, and the incinerator destruction efficiency required in section A.I.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A; and for OC, Method(s) 18, 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services.

e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

f. The oven stack associated with this emissions unit shall be tested for particulates and OC by the methods listed in this section.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

V. Testing Requirements (continued)

3. [40 CFR 63.2991]
The permittee shall conduct or have conducted a performance test for each drying and curing oven subject to 40 CFR Part 63, Subpart HHHH according to the following provisions:

a. The permittee shall conduct, or have conducted, an initial performance test no later than 180 days after the applicable compliance date specified in section A.I.2.f (40 CFR 63.2985). The initial performance test shall be used to demonstrate initial compliance and establish operating parameter limits and ranges to be used to demonstrate continuous compliance with the emission standards.

b. The permittee shall conduct, or have conducted, a performance test every 5 years as part of renewing the 40 CFR Part 70 operating permit.

c. The permittee shall conduct, or have conducted, a performance test according to the requirements specified in section A.V.5 (40 CFR 63.2992) to change the limit or range for any operating limit specified in the OMM plan established during a previous compliance test.

4. [40 CFR 63.2986(c)]
The permittee shall conduct a performance test according to sections A.V.3, A.V.5, and A.V.6 (40 CFR 63.2991, 63.2992, and 63.2993) to demonstrate compliance for each drying and curing oven subject to the emission limit specified in section A.I.2.g (40 CFR 63.2983), and to establish or modify the operating limits or ranges for process or control device parameters that will be monitored to demonstrate continuous compliance.

5. [40 CFR 63.2992]

a. The permittee shall verify the performance of monitoring equipment as specified in section A.III.23 (40 CFR 63.2994) before performing the test.

b. The permittee shall conduct the performance test according to the procedures in 40 CFR 63.7.

c. The permittee shall conduct the performance test under the following conditions:

i. The resin must have the highest specified free-formaldehyde content that will be used.

ii. The permittee shall operate at the maximum feasible urea-formaldehyde resin solids application rate (pounds urea-formaldehyde resin solids applied per hour) that will be used.

d. During the performance test, the permittee shall monitor and record the operating parameters that will be used to demonstrate continuous compliance after the test. These parameters are listed in table 1 of 40 CFR Part 63, Subpart HHHH.

e. The permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction as specified in 40 CFR 63.7(e)(1).

f. The permittee shall conduct three separate test runs for each performance test as specified in 40 CFR 63.7(e)(3), and each test run shall last at least 1 hour.

V. Testing Requirements (continued)

6. [40 CFR 63.2993]
The permittee shall:

a. use EPA Method 1 (40 CFR Part 60, Appendix A) for selecting the sampling port location and the number of sampling ports;

b. use EPA Method 2 (40 CFR Part 60, Appendix A) for measuring the volumetric flow rate;

c. use EPA Method 316 or 318 (40 CFR Part 63, Appendix A) for measuring the concentration of formaldehyde;

d. use the method contained in Appendix A of 40 CFR Part 63, Subpart HHHH or the resin purchase specification and the vendor specification sheet for each resin lot for determining the free-formaldehyde content in the urea-formaldehyde resin; and

e. use the method in Appendix B of 40 CFR Part 63, Subpart HHHH for determining product loss-on-ignition.

7. [40 CFR 63.2995a]
a. Percent reduction for formaldehyde. To determine compliance with the percent reduction formaldehyde emission standard, the permitte shall use equation 1 of 40 CFR 63.2995 as follows:

Ef = [(Mi - Mo)/Mi]* 100 (Eq.1)

where:

Ef = formaldehyde control efficiency, in percent;

Mi = mass flow rate of formaldehyde entering the control device, in kilograms (pounds) per hour; and

Mo = mass flow rate of formaldehyde exiting the control device, in kilograms (pounds) per hour.

[40 CFR 63.2995b]
b. Formaldehyde mass emissions rate. To determine compliance with the kilogram per megagram (pound per ton) formaldehyde emission standard, the permittee shall use equation 2 of 40 CFR 63.2995 as follows:

E = M/P (Eq.2)

where:

E = formaldehyde mass emissions rate, in kilograms (pounds) of formaldehyde per megagram (ton) of fiberglass mat produced;

M = formaldehyde mass emissions rate, in kilograms (pounds) per hour; and

P = the wet-formed fiberglass mat production rate during the emissions sampling period, including any material trimmed from the final product, in megagrams (tons) per hour.

V. Testing Requirements (continued)

[40 CFR 63.2995c]
c. Urea-formaldehyde (UF) resin solids application rate. To determine the UF resin solids application rate, the permittee shall use equation 3 of 40 CFR 63.2995 as follows:

(UF Solids)/Hour = LOI * UFL * MW * SQ (Eq.3)

where:

UF solids/hour = UF resin solids application rate, in pounds per hour;

LOI = loss on ignition (weight faction), or pound of organic binder per pound of mat;

UFL = UF-to-latex ratio in the binder (mass fraction of UF resin solids in total combined resin solids for UF and latex), or pound of UF solids per pound of total resin solids (UF and latex);

MW = weight of the final mat per square, in pounds per roofing square; and

SQ = roofing squares produced per hour.

VI. Miscellaneous Requirements

1. [40 CFR 63.2984(d)]
The permittee shall develop an OMM plan according to 40 CFR 63.2987 and operate this emissions unit at all times according to this plan.

2. [40 CFR 63.2986(g)(3)]
The permittee shall develop and implement a written SSMP according to the provisions in 40 CFR 63.6(e)(3). The SSMP must address the startup, shutdown, and corrective actions taken for malfunctioning process and air pollution control equipment.

3. [40 CFR 63.3001]
The permittee shall comply with the requirements of the general provisions of 40 CFR Part 63, Subpart A, as specified in table 2 of 40 CFR Part 63, Subpart HHHH.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 300X LINE2 (P018)

Activity Description: 300X LINE 2 (MELTERS 3&4)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Rotary Spinner - line 2 with a maximum capacity of 800 lbs/hr. This emissions unit is located in Building 20 and exhausts to stack numbers 40A, 41, and 42. Each stack is equipped with a wet scrubber for particulate control.	OAC rule 3745-31-05(A)(3) (PTI 04-366)	1.92 lbs/hr of particulate emissions 8.41 tons per rolling, 12-month period The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a The emission limitation required by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall operate the wet scrubber control unit whenever this emissions unit is in operation.

3. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water while the emissions unit is in operation.

4. The scrubbing liquid flow rate shall be maintained at a minimum of 3000 gallons per hour while the emissions unit is in operation.

5. The total glass production from this emissions unit shall not exceed 800 pounds per hour, as a monthly average.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall maintain daily records that document any time periods when the wet scrubber was not in service when the emissions unit was in operation.

3. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the wet scrubber while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the wet scrubber once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

4. The permittee shall properly operate and maintain equipment to monitor the scrubbing liquid flow rate while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the scrubbing liquid flow rate once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

5. Each month, the permittee shall record the following information for this emissions unit:

a. the total glass produced;
b. the total hours of operation; and
c. the average amount of glass produced per hour.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the Toledo Division of Environmental Services in writing of any daily record showing that the wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Toledo Division of Environmental Services within 30 days after the event occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the wet scrubber did not comply with the allowable range specified above.

4. The permittee shall submit quarterly scrubbing liquid deviation (excursion) reports that identify all periods of time during which the scrubbing liquid flow rate for the wet scrubber did not comply with the minimum allowable flow rate.

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in A.II.5.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission evaluations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

1.92 lbs/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

8.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly particulate emission limitation (1.92 lbs/hr) by the actual annual hours of operation, and then dividing by 2000 lbs/ton.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The permittee shall record the pressure drop across the scrubber, the scrubbing liquid flow rate, and the average hourly rate of glass production during each test run.

e. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 300X LINE 1 (P019)

Activity Description: 300X LINE 1 (MELTERS 1&2)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Rotary Spinner - line 1 with a maximum capacity of 800 lbs/hr. This emissions unit is located in Building 20 and exhausts to stack numbers 40A, 41, and 42. Each stack is equipped with a wet scrubber for particulate control.	OAC rule 3745-31-05(A)(3) (PTI 04-237)	2.22 lbs/hr of particulate emissions The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a The emission limitation required by this rule is equal to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall operate the wet scrubber control unit whenever this emissions unit is in operation.

3. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water while the emissions unit is in operation.

4. The scrubbing liquid flow rate shall be maintained at a minimum of 3000 gallons per hour while the emissions unit is in operation.

5. The total glass production from this emissions unit shall not exceed 800 pounds per hour, as a monthly average.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall maintain daily records that document any time periods when the wet scrubber was not in service when the emissions unit was in operation.

3. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the wet scrubber while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the wet scrubber once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

4. The permittee shall properly operate and maintain equipment to monitor the scrubbing liquid flow rate while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the scrubbing liquid flow rate once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

5. Each month, the permittee shall record the following information for this emissions unit:

a. the total glass produced;
b. the total hours of operation; and
c. the average amount of glass produced per hour.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the Toledo Division of Environmental Services in writing of any daily record showing that the wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Toledo Division of Environmental Services within 30 days after the event occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the wet scrubber did not comply with the allowable range specified above.

4. The permittee shall submit quarterly scrubbing liquid deviation (excursion) reports that identify all periods of time during which the scrubbing liquid flow rate for the wet scrubber did not comply with the minimum allowable flow rate.

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in A.II.5.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission evaluations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

2.22 lbs/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The permittee shall record the pressure drop across the scrubber, the scrubbing liquid flow rate, and the average hourly rate of glass production during each test run.

e. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 1A (P035)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 1B (P036)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 1C (P037)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 1D (P038)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 1E (P039)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 1F (P040)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 2A (P041)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 2B (P042)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 2C (P043)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 2D (P044)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 2E (P045)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 2F (P046)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 3A (P047)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 3B (P048)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 3C (P049)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 3D (P050)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 3E (P051)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 3F (P052)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 4A (P053)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 4B (P054)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 4C (P055)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 5A (P056)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 5B (P057)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 5C (P058)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 6A (P059)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 6B (P060)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 6C (P061)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 7A (P062)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 7B (P063)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 7C (P064)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 8A (P065)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 8B (P066)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 8C (P067)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 9A (P068)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 9B (P069)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 9C (P070)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 10A (P071)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 10B (P072)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 10C (P073)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 11A (P074)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 11B (P075)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 11C (P076)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 12A (P077)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 12B (P078)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 12C (P079)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 13A (P080)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 13B (P081)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 13C (P082)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 14A (P083)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 14B (P084)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 14C (P085)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 15A (P086)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 15B (P087)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 15C (P088)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 16A (P089)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 16B (P090)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 16C (P091)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 17A (P092)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 17B (P093)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 17C (P094)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 18A (P095)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 18B (P096)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 18C (P097)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 19A (P098)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 19B (P099)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 19C (P100)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 20A (P101)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 20B (P102)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 20C (P103)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 21A (P104)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 21B (P105)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 21C (P106)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 22A (P107)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 22B (P108)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 22C (P109)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 23A (P110)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 23B (P111)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 24A (P112)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 24B (P113)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 25A (P114)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 25B (P115)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 25C (P116)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 25D (P117)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 26A (P118)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 26B (P119)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 26C (P120)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 27A (P121)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 27B (P122)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 27C (P123)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 28A (P124)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 28B (P125)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 28C (P126)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19. The emissions from this emissions unit are collected into a common plenum (serving P035 through P126) that is vented through 13 rotating wire drum particulate collectors (Environmental Microfiber Control (EMC) units) arranged in parallel, which exhaust to stack numbers 29 through 34A.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions (total from all stacks)
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity that is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the EMC control system at all times during the operation of this emissions unit. The pressure drop across the entire EMC control system (dirty air plenum to clean air plenum) shall be maintained within the range of 1.5 to 3.5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the entire EMC control system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the entire EMC control system on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the entire EMC control system did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limit.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each test run, the pressure drop across the entire EMC control system shall be recorded and opacity readings (using USEPA Method 9) shall be recorded for each collector.

e. Emissions units P035 through P126 vent to a dirty air plenum and then are pulled through the EMC dry filter system and vent to a clean air plenum which is equipped with seven fan/stack exhaust units. Stack #30 emissions are considered typical of the seven identical units venting the combined emissions of the EMC system, but only stack 30 has been designed with the necessary facilities to safely test for emissions. The company has agreed to use a worse case factor of 1.2 times the emission rate from stack #30 (based upon flow rate testing in 1993 of the seven stacks) to be representative of each stack, in lieu of testing each stack separately. By this agreement the Ohio EPA will accept the results from the one stack test as representative of all seven. In order for compliance to be demonstrated with the allowable emission rate of 0.551 lb/hr for each emissions unit, use the following equation: [total measured emission rate from stack #30 during the test in lbs/hr] times 1.2 times [the number of fans in operation during the test] divided by [the number of emissions units operating during the test].

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services. The most representative test conditions would be all 93 emissions units operating, all 13 EMC filters in the EMC system operating and all seven fan/stack exhaust units in operation.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 29A (P127)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 61. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P127 through P132, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P127 through P132;

b. the total hours of operation for emissions units P127 through P132; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 61 which serves Osprey 29 (control for P127 through P132) and Osprey 30 (control for P133 through P138). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 29B (P128)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 61. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P127 through P132, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P127 through P132;

b. the total hours of operation for emissions units P127 through P132; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 61 which serves Osprey 29 (control for P127 through P132) and Osprey 30 (control for P133 through P138). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 29C (P129)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 61. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P127 through P132, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P127 through P132;

b. the total hours of operation for emissions units P127 through P132; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 61 which serves Osprey 29 (control for P127 through P132) and Osprey 30 (control for P133 through P138). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 29D (P130)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 61. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P127 through P132, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P127 through P132;

b. the total hours of operation for emissions units P127 through P132; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 61 which serves Osprey 29 (control for P127 through P132) and Osprey 30 (control for P133 through P138). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 29E (P131)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 61. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P127 through P132, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P127 through P132;

b. the total hours of operation for emissions units P127 through P132; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 61 which serves Osprey 29 (control for P127 through P132) and Osprey 30 (control for P133 through P138). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 29F (P132)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 61. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P127 through P132, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P127 through P132;

b. the total hours of operation for emissions units P127 through P132; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 61 which serves Osprey 29 (control for P127 through P132) and Osprey 30 (control for P133 through P138). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 30A (P133)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 61. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P133 through P138, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P133 through P138;

b. the total hours of operation for emissions units P133 through P138; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 61 which serves Osprey 29 (control for P127 through P132) and Osprey 30 (control for P133 through P138). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 30B (P134)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 61. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P133 through P138, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P133 through P138;

b. the total hours of operation for emissions units P133 through P138; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 61 which serves Osprey 29 (control for P127 through P132) and Osprey 30 (control for P133 through P138). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 30C (P135)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 61. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P133 through P138, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P133 through P138;

b. the total hours of operation for emissions units P133 through P138; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 61 which serves Osprey 29 (control for P127 through P132) and Osprey 30 (control for P133 through P138). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 30D (P136)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 61. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P133 through P138, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P133 through P138;

b. the total hours of operation for emissions units P133 through P138; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 61 which serves Osprey 29 (control for P127 through P132) and Osprey 30 (control for P133 through P138). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 30E (P137)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 61. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P133 through P138, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P133 through P138;

b. the total hours of operation for emissions units P133 through P138; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 61 which serves Osprey 29 (control for P127 through P132) and Osprey 30 (control for P133 through P138). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 30F (P138)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 61. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P133 through P138, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P133 through P138;

b. the total hours of operation for emissions units P133 through P138; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 61 which serves Osprey 29 (control for P127 through P132) and Osprey 30 (control for P133 through P138). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 31A (P139)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 62. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P139 through P144, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P139 through P144;

b. the total hours of operation for emissions units P139 through P144; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 62 which serves Osprey 31 (control for P139 through P144) and Osprey 32 (control for P145 through P150). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 31B (P140)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 62. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P139 through P144, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P139 through P144;

b. the total hours of operation for emissions units P139 through P144; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 62 which serves Osprey 31 (control for P139 through P144) and Osprey 32 (control for P145 through P150). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 31C (P141)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 62. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P139 through P144, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P139 through P144;

b. the total hours of operation for emissions units P139 through P144; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 62 which serves Osprey 31 (control for P139 through P144) and Osprey 32 (control for P145 through P150). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 31D (P142)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 62. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P139 through P144, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P139 through P144;

b. the total hours of operation for emissions units P139 through P144; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 62 which serves Osprey 31 (control for P139 through P144) and Osprey 32 (control for P145 through P150). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 31E (P143)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 62. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P139 through P144, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P139 through P144;

b. the total hours of operation for emissions units P139 through P144; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 62 which serves Osprey 31 (control for P139 through P144) and Osprey 32 (control for P145 through P150). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 31F (P144)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 62. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P139 through P144, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P139 through P144;

b. the total hours of operation for emissions units P139 through P144; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 62 which serves Osprey 31 (control for P139 through P144) and Osprey 32 (control for P145 through P150). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 32A (P145)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 62. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P145 through P150, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P145 through P150;

b. the total hours of operation for emissions units P145 through P150; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 62 which serves Osprey 31 (control for P139 through P144) and Osprey 32 (control for P145 through P150). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 32B (P146)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 62. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P145 through P150, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P145 through P150;

b. the total hours of operation for emissions units P145 through P150; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 62 which serves Osprey 31 (control for P139 through P144) and Osprey 32 (control for P145 through P150). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 32C (P147)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 62. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P145 through P150, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P145 through P150;

b. the total hours of operation for emissions units P145 through P150; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 62 which serves Osprey 31 (control for P139 through P144) and Osprey 32 (control for P145 through P150). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 32D (P148)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 62. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P145 through P150, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P145 through P150;

b. the total hours of operation for emissions units P145 through P150; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 62 which serves Osprey 31 (control for P139 through P144) and Osprey 32 (control for P145 through P150). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 32E (P149)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 62. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P145 through P150, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P145 through P150;

b. the total hours of operation for emissions units P145 through P150; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 62 which serves Osprey 31 (control for P139 through P144) and Osprey 32 (control for P145 through P150). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 32F (P150)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 62. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P145 through P150, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P145 through P150;

b. the total hours of operation for emissions units P145 through P150; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 62 which serves Osprey 31 (control for P139 through P144) and Osprey 32 (control for P145 through P150). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 33A (P151)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 63. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P151through P156, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P151 through P156;

b. the total hours of operation for emissions units P151 through P156; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 63 which serves Osprey 33 (control for P151 through P156) and Osprey 34 (control for P157 through P162). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 33B (P152)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 63. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P151through P156, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P151 through P156;

b. the total hours of operation for emissions units P151 through P156; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 63 which serves Osprey 33 (control for P151 through P156) and Osprey 34 (control for P157 through P162). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 33C (P153)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 63. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P151through P156, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P151 through P156;

b. the total hours of operation for emissions units P151 through P156; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 63 which serves Osprey 33 (control for P151 through P156) and Osprey 34 (control for P157 through P162). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 33D (P154)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 63. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P151through P156, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P151 through P156;

b. the total hours of operation for emissions units P151 through P156; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 63 which serves Osprey 33 (control for P151 through P156) and Osprey 34 (control for P157 through P162). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 33E (P155)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 63. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P151through P156, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P151 through P156;

b. the total hours of operation for emissions units P151 through P156; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 63 which serves Osprey 33 (control for P151 through P156) and Osprey 34 (control for P157 through P162). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 33F (P156)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 63. During any downtimes of the Osprey control system, the emissions can be vented to a back-up wet scrubbing system which exhausts to stack numbers 38, 39, and 40.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Osprey fabric filter as the primary control device for this emissions unit. During maintenance or downtime of the primary control device, the permittee shall employ the wet scrubber as the control device while the emissions unit is in operation.

3. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device.

4. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column and the scrubbing liquid flow rate shall be no less than 3000 gallons per hour, when the emissions unit is in operation and the wet scrubber is being used as the emissions control device.

5. The average hourly total glass production rate for emissions units P151through P156, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation and the Osprey fabric filter is being used as the emissions control device. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall properly operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water flow rate while the emissions unit is in operation and the wet scrubber is being employed as the emissions control device. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation:

a. the pressure drop across the scrubber, in inches of water column; and

b. the scrubber water flow rate, in gallons per hour.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the following information:

a. the number of hours the Osprey fabric filter was used as the primary control for this emissions unit;

b. the number of hours the wet scrubber was used as control for this emissions unit; and

c. the number of hours the emissions unit was in operation when all emission control systems were down.

5. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P151 through P156;

b. the total hours of operation for emissions units P151 through P156; and

c. the average hourly glass production rate (a/b).

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.6.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that either the Osprey fabric filter or wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.3.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following wet scrubber parameters did not meet the specifications in section A.II.4:

a. the pressure drop across the scrubber; and

b. the scrubber water flow rate.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.5.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 63 which serves Osprey 33 (control for P151 through P156) and Osprey 34 (control for P157 through P162). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The permittee shall test stacks 38, 39, and 40 which serve the wet scrubbing system (back up control). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters. After the initial stack testing of the wet scrubber, periodic testing is not necessary, unless requested by the Toledo Division of Environmental Services.

e. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

g. Opacity readings using USEPA Method 9 shall be performed during each test run.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 34A (P157)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 63.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P157 through P162, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P157 through P162;

b. the total hours of operation for emissions units P157 through P162; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 63 which serves Osprey 33 (control for P151 through P156) and Osprey 34 (control for P157 through P162). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 34B (P158)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 63.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P157 through P162, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P157 through P162;

b. the total hours of operation for emissions units P157 through P162; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 63 which serves Osprey 33 (control for P151 through P156) and Osprey 34 (control for P157 through P162). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 34C (P159)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 63.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P157 through P162, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

c. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P157 through P162;

b. the total hours of operation for emissions units P157 through P162; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 63 which serves Osprey 33 (control for P151 through P156) and Osprey 34 (control for P157 through P162). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 34D (P160)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 63.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P157 through P162, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P157 through P162;

b. the total hours of operation for emissions units P157 through P162; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 63 which serves Osprey 33 (control for P151 through P156) and Osprey 34 (control for P157 through P162). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 34E (P161)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 63.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P157 through P162, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P157 through P162;

b. the total hours of operation for emissions units P157 through P162; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 63 which serves Osprey 33 (control for P151 through P156) and Osprey 34 (control for P157 through P162). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 34F (P162)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 19A and is equipped with a fabric filtration system (Osprey) which exhausts to stack 63.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P157 through P162, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P157 through P162;

b. the total hours of operation for emissions units P157 through P162; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 63 which serves Osprey 33 (control for P151 through P156) and Osprey 34 (control for P157 through P162). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 35A (P163)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 64.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P163 through P169, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P163 through P169;

b. the total hours of operation for emissions units P163 through P169; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 64 which serves Osprey 35 (control for P163 through P169) and Osprey 36 (control for P170 through P176). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 35B (P164)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 64.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P163 through P169, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P163 through P169;

b. the total hours of operation for emissions units P163 through P169; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 64 which serves Osprey 35 (control for P163 through P169) and Osprey 36 (control for P170 through P176). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 35C (P165)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 64.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P163 through P169, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P163 through P169;

b. the total hours of operation for emissions units P163 through P169; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 64 which serves Osprey 35 (control for P163 through P169) and Osprey 36 (control for P170 through P176). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 35D (P166)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 64.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P163 through P169, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P163 through P169;

b. the total hours of operation for emissions units P163 through P169; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 64 which serves Osprey 35 (control for P163 through P169) and Osprey 36 (control for P170 through P176). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 35E (P167)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 64.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P163 through P169, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P163 through P169;

b. the total hours of operation for emissions units P163 through P169; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 64 which serves Osprey 35 (control for P163 through P169) and Osprey 36 (control for P170 through P176). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 35F (P168)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 64.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P163 through P169, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P163 through P169;

b. the total hours of operation for emissions units P163 through P169; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 64 which serves Osprey 35 (control for P163 through P169) and Osprey 36 (control for P170 through P176). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 35G (P169)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 64.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P163 through P169, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P163 through P169;

b. the total hours of operation for emissions units P163 through P169; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 64 which serves Osprey 35 (control for P163 through P169) and Osprey 36 (control for P170 through P176). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 36A (P170)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 64.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P170 through P176, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P170 through P176;

b. the total hours of operation for emissions units P170 through P176; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 64 which serves Osprey 35 (control for P163 through P169) and Osprey 36 (control for P170 through P176). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 36B (P171)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 64.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P170 through P176, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P170 through P176;

b. the total hours of operation for emissions units P170 through P176; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 64 which serves Osprey 35 (control for P163 through P169) and Osprey 36 (control for P170 through P176). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 36C (P172)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 64.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P170 through P176, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P170 through P176;

b. the total hours of operation for emissions units P170 through P176; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 64 which serves Osprey 35 (control for P163 through P169) and Osprey 36 (control for P170 through P176). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 36D (P173)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 64.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P170 through P176, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P170 through P176;

b. the total hours of operation for emissions units P170 through P176; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 64 which serves Osprey 35 (control for P163 through P169) and Osprey 36 (control for P170 through P176). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 36E (P174)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 64.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P170 through P176, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P170 through P176;

b. the total hours of operation for emissions units P170 through P176; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 64 which serves Osprey 35 (control for P163 through P169) and Osprey 36 (control for P170 through P176). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 36F (P175)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 64.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P170 through P176, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P170 through P176;

b. the total hours of operation for emissions units P170 through P176; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 64 which serves Osprey 35 (control for P163 through P169) and Osprey 36 (control for P170 through P176). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 36G (P176)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 64.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P170 through P176, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P170 through P176;

b. the total hours of operation for emissions units P170 through P176; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 64 which serves Osprey 35 (control for P163 through P169) and Osprey 36 (control for P170 through P176). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 37A (P177)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 65.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P177 through P183, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P177 through P183;

b. the total hours of operation for emissions units P177 through P183; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 65 which serves Osprey 37 (control for P177 through P183) and Osprey 38 (control for P184 through P190). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 37B (P178)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 65.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P177 through P183, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P177 through P183;

b. the total hours of operation for emissions units P177 through P183; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 65 which serves Osprey 37 (control for P177 through P183) and Osprey 38 (control for P184 through P190). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 37C (P179)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 65.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P177 through P183, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P177 through P183;

b. the total hours of operation for emissions units P177 through P183; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 65 which serves Osprey 37 (control for P177 through P183) and Osprey 38 (control for P184 through P190). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 37D (P180)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 65.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P177 through P183, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P177 through P183;

b. the total hours of operation for emissions units P177 through P183; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 65 which serves Osprey 37 (control for P177 through P183) and Osprey 38 (control for P184 through P190). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 37E (P181)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 65.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P177 through P183, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P177 through P183;

b. the total hours of operation for emissions units P177 through P183; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 65 which serves Osprey 37 (control for P177 through P183) and Osprey 38 (control for P184 through P190). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 37F (P182)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 65.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P177 through P183, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P177 through P183;

b. the total hours of operation for emissions units P177 through P183; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 65 which serves Osprey 37 (control for P177 through P183) and Osprey 38 (control for P184 through P190). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 37G (P183)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 65.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P177 through P183, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P177 through P183;

b. the total hours of operation for emissions units P177 through P183; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 65 which serves Osprey 37 (control for P177 through P183) and Osprey 38 (control for P184 through P190). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 38A (P184)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 65.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P184 through P190, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P184 through P190;

b. the total hours of operation for emissions units P184 through P190; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 65 which serves Osprey 37 (control for P177 through P183) and Osprey 38 (control for P184 through P190). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 38B (P185)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 65.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P184 through P190, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P184 through P190;

b. the total hours of operation for emissions units P184 through P190; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 65 which serves Osprey 37 (control for P177 through P183) and Osprey 38 (control for P184 through P190). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 38C (P186)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 65.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P184 through P190, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P184 through P190;

b. the total hours of operation for emissions units P184 through P190; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 65 which serves Osprey 37 (control for P177 through P183) and Osprey 38 (control for P184 through P190). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 38D (P187)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 65.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P184 through P190, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P184 through P190;

b. the total hours of operation for emissions units P184 through P190; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 65 which serves Osprey 37 (control for P177 through P183) and Osprey 38 (control for P184 through P190). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 38E (P188)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 65.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P184 through P190, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P184 through P190;

b. the total hours of operation for emissions units P184 through P190; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 65 which serves Osprey 37 (control for P177 through P183) and Osprey 38 (control for P184 through P190). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 38F (P189)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 65.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P184 through P190, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P184 through P190;

b. the total hours of operation for emissions units P184 through P190; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 65 which serves Osprey 37 (control for P177 through P183) and Osprey 38 (control for P184 through P190). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 38G (P190)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 65.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P184 through P190, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P184 through P190;

b. the total hours of operation for emissions units P184 through P190; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 65 which serves Osprey 37 (control for P177 through P183) and Osprey 38 (control for P184 through P190). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 39A (P191)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 66.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P191 through P197, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P191 through P197;

b. the total hours of operation for emissions units P191 through P197; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 66 which serves Osprey 39 (control for P191 through P197) and Osprey 40 (control for P198 through P204). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 39B (P192)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 66.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P191 through P197, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P191 through P197;

b. the total hours of operation for emissions units P191 through P197; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 66 which serves Osprey 39 (control for P191 through P197) and Osprey 40 (control for P198 through P204). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 39C (P193)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 66.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P191 through P197, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P191 through P197;

b. the total hours of operation for emissions units P191 through P197; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 66 which serves Osprey 39 (control for P191 through P197) and Osprey 40 (control for P198 through P204). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 39D (P194)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 66.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P191 through P197, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P191 through P197;

b. the total hours of operation for emissions units P191 through P197; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 66 which serves Osprey 39 (control for P191 through P197) and Osprey 40 (control for P198 through P204). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 39E (P195)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 66.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P191 through P197, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P191 through P197;

b. the total hours of operation for emissions units P191 through P197; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 66 which serves Osprey 39 (control for P191 through P197) and Osprey 40 (control for P198 through P204). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 39F (P196)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 66.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P191 through P197, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P191 through P197;

b. the total hours of operation for emissions units P191 through P197; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 66 which serves Osprey 39 (control for P191 through P197) and Osprey 40 (control for P198 through P204). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 39G (P197)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 66.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P191 through P197, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P191 through P197;

b. the total hours of operation for emissions units P191 through P197; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 66 which serves Osprey 39 (control for P191 through P197) and Osprey 40 (control for P198 through P204). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 40A (P198)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 66.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P198 through P204, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P198 through P204;

b. the total hours of operation for emissions units P198 through P204; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 66 which serves Osprey 39 (control for P191 through P197) and Osprey 40 (control for P198 through P204). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 40B (P199)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 66.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P198 through P204, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P198 through P204;

b. the total hours of operation for emissions units P198 through P204; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 66 which serves Osprey 39 (control for P191 through P197) and Osprey 40 (control for P198 through P204). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 40C (P200)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 66.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P198 through P204, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P198 through P204;

b. the total hours of operation for emissions units P198 through P204; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 66 which serves Osprey 39 (control for P191 through P197) and Osprey 40 (control for P198 through P204). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 40D (P201)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 66.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P198 through P204, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P198 through P204;

b. the total hours of operation for emissions units P198 through P204; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 66 which serves Osprey 39 (control for P191 through P197) and Osprey 40 (control for P198 through P204). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 40E (P202)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 66.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P198 through P204, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P198 through P204;

b. the total hours of operation for emissions units P198 through P204; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 66 which serves Osprey 39 (control for P191 through P197) and Osprey 40 (control for P198 through P204). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 40F (P203)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 66.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P198 through P204, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P198 through P204;

b. the total hours of operation for emissions units P198 through P204; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 66 which serves Osprey 39 (control for P191 through P197) and Osprey 40 (control for P198 through P204). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source 40G (P204)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 17 and is equipped with a fabric filtration system (Osprey) which exhausts to stack 66.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	6.24 lbs/hr of carbon monoxide (CO) 27.33 tons of CO per rolling, 12-month period 0.21 lb/hr of nitrogen oxides (NOx) 0.92 ton of NOx per rolling, 12-month period 2.41 tons of particulate emissions per rolling, 12-month period 0.20 lb/hr of volatile organic compounds (VOC) 0.88 ton of VOC per rolling, 12-month period sulfur dioxide (SO2) - negligible See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC rule 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the Osprey fabric filter shall be maintained within the range of 0.5 to 5 inches of water column when the emissions unit is in operation.

3. The average hourly total glass production rate for emissions units P198 through P204, combined, shall not exceed the value (lbs/hr) during the most recent stack test that demonstrated compliance with the allowable particulate emission rate, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Osprey fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Osprey fabric filter once during each of the 6 4-hour blocks of time during the day when the emissions unit is in operation.

3. The permittee shall maintain daily records of the following information:

a. the number of hours the emissions unit was in operation when the Osprey control system was down.

4. The permittee shall maintain monthly records of the following information:

a. the total glass produced, in pounds, for emissions units P198 through P204;

b. the total hours of operation for emissions units P198 through P204; and

c. the average hourly glass production rate (a/b).

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

6. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.5.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the Osprey fabric filter was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the Osprey fabric filter did not comply with the allowable range specified in section A.II.2.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.3.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.c Emission Limitation:

2.41 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.551 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

6.24 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.e Emission Limitation:

27.33 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 6.24 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.21 lb/hr of NOx

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.92 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.21 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.20 lb/hr of VOC

Applicable Compliance Method:

If required, compliance with the pounds per hour limitation shall be demonstrated by the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.i Emission Limitation:

0.88 ton of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.20 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed by the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The permittee shall test stack 66 which serves Osprey 39 (control for P191 through P197) and Osprey 40 (control for P198 through P204). Compliance for each emissions unit shall be determined using an average emission factor (lb/ton of production) that is calculated based on the total production for all the emissions units during the emission test. This testing shall also establish baseline values for the parametric monitoring parameters.

d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

f. Opacity readings using USEPA Method 9 shall be performed during each test run.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 300X LINE 3 (P239)

Activity Description: 300X LINE 3 Melter 5

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a 300X (line 3) microfiber rotary spin with a rated capacity of 800 lbs/hr. This emissions unit is located in building 20 and exhausts to stack numbers 40A, 41, and 42. Each stack is equipped with a wet scrubber for particulate control.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	18.2 lbs/hr of carbon monoxide (CO) 79.72 tons of CO per rolling, 12-month period 0.09 lb/hr of nitrogen oxides (NOx) 0.39 ton of NOx per rolling, 12-month period 9.7 tons of particulate emissions per rolling, 12-month period sulfur dioxide (SO2) - negligible 0.39 lb/hr of volatile organic compounds (VOC) 1.71 tons of VOC per rolling, 12-month period See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	2.22 lbs/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the wet scrubber at all times during the operation of this emissions unit.

3. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column, when the emissions unit is in operation.

4. The total glass production from this emissions unit shall not exceed 800 pounds per hour, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

5. The water flow rate for the the wet scrubber shall be maintained at a minimum of 3000 gallons per hour, when the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the wet scrubber while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

The permittee shall record the pressure drop across the wet scrubber, in inches of water column, once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall maintain a log or record of the downtime for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

4. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the total glass produced, in pounds;

b. the total hours of operation; and

c. the average hourly amount of glass produced per hour (a/b).

5. The permittee shall properly operate and maintain equipment to monitor the scrubbing liquid flow rate while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

The permittee shall record the scrubbing liquid flow rate to the wet scrubber, in gallons per hour, once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the associated wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the wet scrubber did not comply with the specified range above.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.4.

5. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the water flow rate through the wet scrubber did not comply with the minimum flow rate specified above.

6. Unless otherwise specified, the deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

2.22 lbs/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

9.7 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 2.22 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

18.2 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

79.72 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 18.2 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.09 lb/hr of NOx

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.39 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.09 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.39 lb/hr of VOC

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

1.71 tons of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.39 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed based upon the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for CO, Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The permittee shall record the pressure drop across the scrubber, the scrubbing liquid flow rate, and the average hourly rate of glass production during each test run.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 300X LINE 4 (P240)

Activity Description: 300X LINE 4 melter 6

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a 300X (line 4) microfiber rotary spin with a rated capacity of 800 lbs/hr. This emissions unit is located in building 20 and exhausts to stack numbers 40A, 41, and 42. Each stack is equipped with a wet scrubber for particulate control.	OAC rule 3745-31-05(A)(3) (PTI 04-982)	18.2 lbs/hr of carbon monoxide (CO) 79.72 tons of CO per rolling, 12-month period 0.09 lb/hr of nitrogen oxides (NOx) 0.39 ton of NOx per rolling, 12-month period 9.7 tons of particulate emissions per rolling, 12-month period sulfur dioxide (SO2) - negligible 0.39 lb/hr of volatile organic compounds (VOC) 1.71 tons of VOC per rolling, 12-month period See A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	2.22 lbs/hr of particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-18-06(C), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

2. Additional Terms and Conditions (continued)

2.b This process is exempt from the requirements specified in OAC 3745-18-06 because the maximum operating rate is less than 1000 lbs/hr.

2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-982.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the wet scrubber at all times during the operation of this emissions unit.

3. The pressure drop across the wet scrubber shall be maintained within the range of 2 to 6 inches of water column, when the emissions unit is in operation.

4. The total glass production from this emissions unit shall not exceed 800 pounds per hour, as a monthly average. The permittee may increase the average hourly total glass production rate by demonstrating compliance during a stack test, performed in accordance with the procedures and methods as detailed in OAC rule 3745-17-03(B)(10), at the higher average hourly glass pull rate.

5. The water flow rate for the the wet scrubber shall be maintained at a minimum of 3000 gallons per hour, when the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the wet scrubber while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

The permittee shall record the pressure drop across the wet scrubber, in inches of water column, once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

3. The permittee shall maintain a log or record of the downtime for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

4. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the total glass produced, in pounds;

b. the total hours of operation; and

c. the average hourly amount of glass produced per hour (a/b).

5. The permittee shall properly operate and maintain equipment to monitor the scrubbing liquid flow rate while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

The permittee shall record the scrubbing liquid flow rate to the wet scrubber, in gallons per hour, once during each of the 6 4-hour blocks of time during the day when this emissions unit is in operation.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall notify the TDOES in writing of any daily record showing that the associated wet scrubber was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the TDOES within 30 days after the incident occurs.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the wet scrubber did not comply with the specified range above.

4. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the production limitation specified in section A.II.4.

5. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the water flow rate through the wet scrubber did not comply with the minimum flow rate specified above.

6. Unless otherwise specified, the deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in Method 9 of 40 CFR Part 60, Appendix A and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

2.22 lbs/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

1.c Emission Limitation:

9.7 tons of particulate emissions per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 2.22 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.d Emission Limitation:

18.2 lbs/hr of CO

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

79.72 tons of CO per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 18.2 lbs/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.f Emission Limitation:

0.09 lb/hr of NOx

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in Method 7 of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

0.39 ton of NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.09 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.h Emission Limitation:

0.39 lb/hr of VOC

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in Method 25 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation:

1.71 tons of VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.39 lb/hr by the actual hours of operation per rolling, 12-month period, and then dividing by 2000 lbs/ton.

1.j Emission Limitation:

SO2 - negligible

Applicable Compliance Method:

Compliance shall be presumed based upon the exclusive combustion of natural gas and the monitoring and record keeping requirements of section A.III.1.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and CO emission limitations.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulate emissions, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for CO, Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The permittee shall record the pressure drop across the scrubber, the scrubbing liquid flow rate, and the average hourly rate of glass production during each test run.

e. The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source bld 9 - 1A (P242)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 9 and is equipped with a fabric filtration system (Building 9 Osprey) which exhausts to stack number 71.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity which is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Building 9 Osprey at all times during the operation of this emissions unit. The pressure drop across the Building 9 Osprey shall be maintained within the range of 0.5 to 5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Building 9 Osprey while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Building 9 Osprey on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the Building 9 Osprey did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During the emission testing, opacity readings using USEPA Method 9 and readings of the pressure drop across the filter shall be recorded during each test run.

e. All testing shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source bld 9 - 1B (P243)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 9 and is equipped with a fabric filtration system (Building 9 Osprey) which exhausts to stack number 71.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity which is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Building 9 Osprey at all times during the operation of this emissions unit. The pressure drop across the Building 9 Osprey shall be maintained within the range of 0.5 to 5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Building 9 Osprey while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Building 9 Osprey on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the Building 9 Osprey did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During the emission testing, opacity readings using USEPA Method 9 and readings of the pressure drop across the filter shall be recorded during each test run.

e. All testing shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source bld 9 - 1C (P244)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 9 and is equipped with a fabric filtration system (Building 9 Osprey) which exhausts to stack number 71.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity which is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Building 9 Osprey at all times during the operation of this emissions unit. The pressure drop across the Building 9 Osprey shall be maintained within the range of 0.5 to 5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Building 9 Osprey while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Building 9 Osprey on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the Building 9 Osprey did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During the emission testing, opacity readings using USEPA Method 9 and readings of the pressure drop across the filter shall be recorded during each test run.

e. All testing shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source bld 9 - 1D (P245)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 9 and is equipped with a fabric filtration system (Building 9 Osprey) which exhausts to stack number 71.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity which is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Building 9 Osprey at all times during the operation of this emissions unit. The pressure drop across the Building 9 Osprey shall be maintained within the range of 0.5 to 5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Building 9 Osprey while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Building 9 Osprey on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the Building 9 Osprey did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During the emission testing, opacity readings using USEPA Method 9 and readings of the pressure drop across the filter shall be recorded during each test run.

e. All testing shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source bld 9 - 1E (P246)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 9 and is equipped with a fabric filtration system (Building 9 Osprey) which exhausts to stack number 71.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity which is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Building 9 Osprey at all times during the operation of this emissions unit. The pressure drop across the Building 9 Osprey shall be maintained within the range of 0.5 to 5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Building 9 Osprey while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Building 9 Osprey on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the Building 9 Osprey did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During the emission testing, opacity readings using USEPA Method 9 and readings of the pressure drop across the filter shall be recorded during each test run.

e. All testing shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source bld 9 - 1F (P247)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 9 and is equipped with a fabric filtration system (Building 9 Osprey) which exhausts to stack number 71.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity which is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Building 9 Osprey at all times during the operation of this emissions unit. The pressure drop across the Building 9 Osprey shall be maintained within the range of 0.5 to 5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Building 9 Osprey while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Building 9 Osprey on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the Building 9 Osprey did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During the emission testing, opacity readings using USEPA Method 9 and readings of the pressure drop across the filter shall be recorded during each test run.

e. All testing shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source bld 9 - 1G (P248)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 9 and is equipped with a fabric filtration system (Building 9 Osprey) which exhausts to stack number 71.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity which is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Building 9 Osprey at all times during the operation of this emissions unit. The pressure drop across the Building 9 Osprey shall be maintained within the range of 0.5 to 5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Building 9 Osprey while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Building 9 Osprey on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the Building 9 Osprey did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During the emission testing, opacity readings using USEPA Method 9 and readings of the pressure drop across the filter shall be recorded during each test run.

e. All testing shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Microstrand Source bld 9 - 1H (P249)

Activity Description: This process operates by melting glass using natural gas to make glass fibers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
This emissions unit consists of a microfiber pot and burner, and a marble melt unit, with a rated capacity of 26 lbs/hr. This emissions unit is located in building 9 and is equipped with a fabric filtration system (Building 9 Osprey) which exhausts to stack number 71.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hr particulate emissions
	OAC rule 3745-18-06(C)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a This emissions unit has a rated capacity which is less than 1000 lbs/hr process weight input and is, therefore, exempt from the requirements of this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The permittee shall employ the Building 9 Osprey at all times during the operation of this emissions unit. The pressure drop across the Building 9 Osprey shall be maintained within the range of 0.5 to 5 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Building 9 Osprey while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the Building 9 Osprey on a daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations from weekly to once every 2 weeks for this emissions unit if the following conditions are met:

a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.3.

The permittee shall revert to weekly observations if any visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the Building 9 Osprey did not comply with the allowable range specified above.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures required in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in section A.V.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of the permit and within 6 months prior to permit expiration. If testing was performed with 12 months prior to permit issuance, and was accepted by the Ohio EPA, then additional testing within 6 months after issuance of the permit will not be required unless specifically requested by the Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During the emission testing, opacity readings using USEPA Method 9 and readings of the pressure drop across the filter shall be recorded during each test run.

e. All testing shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Toledo Division of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

None

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