



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

10/02/03

CERTIFIED MAIL

**RE: Final Title V Significant Permit
Modification Chapter 3745-77 permit**

03-20-01-0003
Johns Manville International, Inc. - Defiance Plant 2
George R Bonin
Third & PERRY STREETS
158
DEFIANCE, OH 43512-0000

Dear George R Bonin:

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
309 South Fourth Street, Room 222
Columbus, Ohio 43215

If you have any questions, please contact Northwest District Office.

Sincerely,

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

cc: Northwest District Office
File, DAPC PMU



State of Ohio Environmental Protection Agency

FINAL TITLE V SIGNIFICANT PERMIT MODIFICATION

Original Effective Date: 04/03/02	Expiration Date: 04/03/07	Modification Effective Date: 10/02/03
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This document constitutes issuance of a Title V significant permit modification for Facility ID: 03-20-01-0003 to:

Johns Manville International, Inc. - Defiance Plant 2
400 PERRY STREET
P.O. BOX 158
DEFIANCE, OH 43512-0158

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

P001 (FIBERGLASS FORMING AND COLLECTION UNIT #21) This process operates by melting glass and attenuating it in to glass fibers.	P010 (FIBERGLASS FORMING AND COLLECTION UNIT #25) This process operates by melting glass and attenuating it in to glass fibers.	P018 (CURING OVEN UNIT #25) This oven cures fiberglass products.
P003 (GLASS MELTING FURNACE UNIT #201) Glass melting furnace. Marble production.	P011 (FIBERGLASS FORMING AND COLLECTION UNIT #26) This process operates by melting glass and attenuating it in to glass fibers.	P019 (CURING OVEN UNIT #26) This oven cures fiberglass products.
P007 (GLASS MELTING FURNACE UNIT#203) Glass melting furnace. Marble production.	P012 (FIBERGLASS FORMING AND COLLECTION UNIT #27) This process operates by melting glass and attenuating it in to glass fibers.	P025 (Fiberglass pipe Curing Oven - Line #21) The oven process cures fiberglass pipe insulation
P008 (FIBERGLASS FORMING AND COLLECTION UNIT #23) This process operates by melting glass and attenuating it in to glass fibers.	P016 (CURING OVEN UNIT #23) This oven cures fiberglass products.	P026 (Fiberglass pipe grinding, trimming, and slitting) This process grinds, trims, and slits the cured pipe insulation to proper final product specifications.
P009 (FIBERGLASS FORMING AND COLLECTION UNIT #24) This process operates by melting glass and attenuating it in to glass fibers.	P017 (CURING OVEN UNIT #24) This oven cures fiberglass products.	P027 (Fiberglass pipe Sear Roll) The Sear Roll thermally set the exterior of the uncured pipe insultaion before entering the curing oven.

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:

Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402
(419) 352-8461

OHIO ENVIRONMENTAL PROTECTION AGENCY

A handwritten signature in black ink, appearing to read "Christopher Jones", is written over a solid black horizontal line.

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, i.e., in Section A.III of Part III of this Title V permit, 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. **All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:**

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 OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with General Term and Condition A.1.c.ii below; and each report shall cover the previous calendar quarter.

In accordance with OAC rule 3745-15-06, a malfunction constitutes a violation of an emission limitation (or control requirement) and, therefore, is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) 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. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule

3745-15-06, must be reported in writing on a quarterly basis.

Any scheduled maintenance, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- ii. **Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.IV of Part III of this Title V permit or, in some cases, in Part II of this Title V permit, all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. OAC rule 3745-77-07(A)(3)(c) is not fully satisfied until the permittee addresses all other deviations of the federally enforceable requirements specified in the permit.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement overrides the reporting requirements specified in this General Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this General Term and Condition.

See B.6 below if no deviations occurred during the quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- iii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted in the following manner:**

Written reports that identify all other deviations of the federally enforceable requirements contained in this permit, including the monitoring, record keeping, and reporting requirements, which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months.

In identifying each deviation, the permittee shall specify the federally enforceable 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 reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with General Term and Condition A.1.c.ii above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such 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))

- v. 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))

2. Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance 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). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in General Term and Condition A.1.c.i above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Risk Management Plans

If applicable, the permittee shall 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"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

- a. a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or
- b. as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC

Chapter 3745-104, including the registration and submission of the risk management 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. 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.

(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))

21. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification by the responsible official of the date on which the emissions unit was permanently shut down. Authorization to operate the affected part or activity of the stationary source shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

If an emissions unit is permanently shut down (i.e., that has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any monitoring, record keeping, reporting, or testing requirements, applicable to that emissions unit, except for any residual

requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

No emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

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 Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation 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 by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

- a. where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in General Term and Condition A.1.c.ii;
- b. where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; and
- c. where the company's responsible official has certified that an emissions unit has been permanently shut down.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforceable Section

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

P013- Glass cullett bin (*permit to install 03-2842*);
P020- Glass material storage silos (*permit to install 03-6607*);
P023- Fiberglass test press w/ HEAF (*permit to install 03-7511*);
P024- Fiberglass mix batch bin #8 (*permit to install 03-8729*);
T001- Dedusting oil storage tank (*permit to install 03-5977*);

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, and well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more applicable requirements contained in the federally-approved versions of OAC Chapters 3745-17, 3745-18, and/or 3745-21.

B. State Only Enforceable Section

1. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirements or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

Z001- Lehr System - glass melting furnace #201;	Z032- Glass storage silo;
Z002- Lehr System - glass melting furnace #202;	Z033- Glass storage silo;
Z003- Lehr System - glass melting furnace #203;	Z034- Glass storage silo;
Z004- Resin storage tank;	Z035- Glass storage silo;
Z005- Binder mix tank;	Z038- Glass storage silo;
Z006- Ammonia storage tanks;	Z039- Glass storage silo;
Z010- Caustic tank;	Z040- Glass storage silo;
Z011- Urea hopper;	Z041- Railcar unloading;
Z012- Ammonia sulfate hopper;	Z042- Material mixing; and
Z013- Glass marble conveying;	Z043- Glass storage silo.
Z014- Pot and burner rebuild area;	
Z015- Process water treatment;	
Z016- Water-based paint spray booth;	
Z021- LOI test oven;	
Z030- Glass storage silo;	
Z031- Glass storage silo;	

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

Emissions Unit ID: FIBERGLASS FORMING AND COLLECTION UNIT #21 (P001)

Activity Description: This process operates by melting glass and attenuating it in to glass fibers.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming and collection unit #21	OAC rule 3745-17-11(B)(1)	See A.I.2.b.
	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	exempt (See A.I.2.a.)
	40 CFR, Part 63, Subpart NNN	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 3.4 kg of formaldehyde per megagram (6.8 lbs of formaldehyde per ton) of glass pulled.

2. Additional Terms and Conditions

- a. This emissions unit was installed prior to February 15, 1972. Therefore, there are no applicable regulations/emission limitations for organic compounds for this emissions unit.
- b. PE from this emissions unit shall be less than 10 lbs/hr.*

*The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds/hour (the permittee has demonstrated this based on stack testing). Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 lbs PE/hr. However, to ensure that Figure II will not be applicable, the permittee has agreed to

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accept the PE limitation stated above (less than 10 lbs/hr).

II Operational Restrictions

1. The permittee shall operate the process modifications such that the monitored process parameter(s) is (are) not outside the limit(s) established during the performance test as specified in 40 CFR part 63.1384(a)(10) for more than 10 percent of the total operating time in a 6-month block reporting period.
2. The permittee shall use a resin in the formulation of binder such that the free-formaldehyde content of the resin used does not exceed the free-formaldehyde range contained in the specification for the resin used during the performance test as specified in 40 CFR 63.1384(a)(9).
3. The permittee shall use a binder formulation that does not vary from the specification and operating range established and used during the performance test as specified in 40 CFR part 63.1384(a)(9). [For the purposes of this standard, adding or increasing the quantity of urea and/or lignin in the binder formulation does not constitute a change in the binder formulation.]

III Monitoring and/or Recordkeeping

1. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from 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 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 minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. Notwithstanding the frequency of the monitoring and record keeping requirements specified in section A.III.1, the permittee may reduce the frequency of visual observations for this emissions

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from at least 5 days per week to weekly readings if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1.

The permittee shall revert to 5 days per week readings if any abnormal visible emissions are observed.

3. The permittee shall prepare a written operations, maintenance, and monitoring plan. The plan shall be submitted to the Director for review and approval as part of the application for a part 70 permit. The plan shall include the following information:
 - a. procedures for the proper operation and maintenance of process modifications used to meet the emission limits in 40 CFR part 63.1382;
 - b. procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each monitoring device according to the manufacturers's instructions; and
 - c. corrective actions to be taken when process parameters deviate from the limit(s) established during initial performance tests.
4. The permittee shall establish a correlation between formaldehyde emissions and a process parameter(s) to be monitored.
5. The permittee shall monitor the established parameter(s) according to the procedures in the operations, maintenance, and monitoring plan.
6. The permittee shall include as part of their operations, maintenance, and monitoring plan the following information:
 - a. procedures for the proper operation and maintenance of the process;
 - b. process parameter(s) to be monitored to demonstrate compliance with the applicable emission limits in 40 CFR part 63.1382. Examples of process parameters include loss on ignition (LOI), binder solids content, and binder application rate;
 - c. correlation(s) between process parameter(s) to be monitored and formaldehyde emissions;
 - d. a schedule for monitoring the process parameter(s); and
 - e. record keeping procedures, consistent with the record keeping requirements of 40 CFR part 63.1386, to show that the process parameter value(s) established during the performance test is not exceeded.

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7. The permittee shall monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation of binder.
8. The permittee shall monitor and record the formulation of each batch of binder used.
9. The permittee shall monitor and record at least once every 8 hours, the product (LOI) and product density of each bonded wool fiberglass product manufactured.
10. For all process operating parameters measured during the initial performance tests, the permittee may change the limits established during the initial performance tests if additional performance testing is conducted to verify that, at the new control device or process parameter levels, they comply with the applicable emission limits in 40 CFR part 63.1382. The owner or operator shall conduct all additional performance tests according to the procedures 40 CFR part 63, subpart A and in 40 CFR part 63.1384.
11. The permittee shall develop and implement a written plan as described in 40 CFR part 63.6(e)(3) that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process modifications and control systems used to comply with the standard. In addition to the information required in 40 CFR part 63.6(e)(3), the plan shall include:
 - a. procedures to determine and record the cause of the malfunction and the time the malfunction began and ended;
 - b. corrective actions to be taken in the event of a malfunction of a control device or process modification, including procedures for recording the actions taken to correct the malfunction or minimize emissions; and
 - c. a maintenance schedule for each control device and process modification that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.
12. The permittee shall also keep records of each event as required by 40 CFR part 63.10(b) of this part and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in 40 CFR part 63.10(e)(3)(iv).
13. As required by 40 CFR part 63.10(b), the permittee shall maintain files of all information (including all reports and notifications) required by the general provisions and this subpart:
 - a. The permittee shall retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records shall be retained at the facility. The remaining 3 years of records may be retained off site.
 - b. The permittee may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche.
 - c. The permittee may report required information on paper or on a labeled computer disk using

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commonly available and EPA-compatible computer software.

14. In addition to the general records required by 40 CFR part 63.10(b)(2), the permittee shall maintain records of the following information:
 - a. The formulation of each binder batch and the LOI and density for each product manufactured on a flame attenuation manufacturing line subject to the provisions of this subpart, and the free formaldehyde content of each resin shipment received and used in the binder formulation.
 - b. The process parameter level(s) flame attenuation manufacturing lines that use process modifications to comply with the emission limits, including any period when the parameter level(s) deviated from the established limit(s), the date and time of the deviation, when corrective actions were initiated, the cause of the deviation, an explanation of the corrective actions taken, and when the cause of the deviation was corrected.

IV Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. As required by 40 CFR part 63.10(e)(3)(v), the permittee shall report semiannually if measured emissions are in excess of the applicable standard or a monitored parameter deviates from the levels established during the performance test. The report shall contain the information specified in 40 CFR part 63.10(c) as well as the additional records required by the record keeping requirements of paragraph V.14 of this permit. When no deviations have occurred, the permittee shall submit a report stating that no excess emissions occurred during the reporting period.

V Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
less than 10 lbs PE/hr

Applicable Compliance Method:
Compliance with the PE limitation above shall be based on the results of stack testing conducted in accordance with the methods in OAC rule 3745-17-03(B)(10).
 - b. Emission Limitation -

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Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance in accordance with the methods specified in OAC rule 3745-17-03 (B)(1).

u. Emission Limitation:

The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 3.4 kg of formaldehyde per megagram (6.8 lb of formaldehyde per ton) of glass pulled.

Applicable Compliance Method: The permittee shall demonstrate compliance with the allowable formaldehyde emission limitation above based upon the record keeping and monitoring requirements established in section of this permit.

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 prior to permit expiration.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 - 5 of 40 CFR, Part 60, Appendix A (as measured by the front-half catch only).
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, **Northwest** District Office.
3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northwest District Office. 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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Personnel from the Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office

4. Unless disapproved by the Director, a permittee of a flame attenuation manufacturing line regulated by this subpart may conduct short-term experimental production runs using binder formulations or other process modifications where the process parameter values would be outside those established during performance tests without first conducting performance tests. Such runs shall not exceed 1 week in duration unless the Director approves a longer period. The permittee shall notify the Director and postmark or deliver the notification at least 15 days prior to commencement of the short-term experimental production runs. The Director shall inform the permittee of a decision to disapprove or shall request additional information prior to the date of the short-term experimental production runs. Notification of intent to perform an experimental short-term production run shall include the following information:
 - a. the purpose of the experimental production run;
 - b. the affected line;
 - c. how the established process parameters will deviate from previously approved levels;
 - d. the duration of the experimental production run;
 - e. the date and time of the experimental production run; and
 - f. a description of any emission testing to be performed during the experimental production run.

VI Miscellaneous Requirements

None

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Emissions Unit: FIBERGLASS FORMING AND COLLECTION UNIT
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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Record keeping

None

IV Reporting Requirements

None

V Testing Requirements

None

VI Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

Emissions Unit ID: GLASS MELTING FURNACE UNIT #201 (P003)

Activity Description: Glass melting furnace. Marble production.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass melt furnace, unit melter w/ electrostatic precipitator & baghouse in series; glass melting furnace unit #201	OAC rule 3745-17-11(B)(1)	8.7 lbs particulate emissions (PE)/hr (See A.I.2.a.)
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-18-06(E)(2)	65.40 lbs sulfur dioxide (SO ₂)/hr
	40 CFR, Part 63, Subpart NNN	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 0.25 kilogram (kg) of particulate matter (PM) per megagram (Mg) (0.5 pound [lb] of PM per ton) of glass pulled for each new or existing glass-melting furnace.

2. Additional Terms and Conditions

- a. Emissions units P003 and P007 are subject to the "grouping" provisions of OAC rule 3745-17-11(A)(3). Therefore, the PE shall not exceed 8.7 lbs/hr from emissions units P003 and P007, combined.

II Operational Restrictions

1. The permittee shall initiate corrective action within 1 hour of an alarm from a bag leak detection system and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan. The permittee shall implement a Quality Improvement Plan (QIP) consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the bag leak detection system alarm is sounded for more than 5 percent of the total operating time in a 6-month block reporting period.
2. The permittee shall initiate corrective action within 1 hour when any 3-hour block average of the monitored electrostatic precipitator (ESP) parameter is outside the limit(s) established during the performance test as specified in 40 CFR Part 63.1384 and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.
 - a. The permittee shall implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64 subpart D when the monitored ESP parameter is outside the limit(s) established during the performance test as specified in 40 CFR Part 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.
 - b. The permittee shall operate the ESP such that the monitored ESP parameter is not outside the limit(s) established during the performance test as specified in 40 CFR part 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.
3. The permittee shall operate each glass-melting furnace such that the glass pull rate does not exceed, by more than 20 percent, the average glass pull rate established during the performance test as specified in 40 CFR Part 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

III Monitoring and/or Record keeping

1. The permittee shall prepare for each glass melting furnace subject to the provisions 40 CFR 63.1380, a written operations, maintenance, and monitoring plan. The plan shall be submitted to the Director for review and approval as part of the application for a part 70 permit. The plan shall include the following information:
 - a. procedures for the proper operation and maintenance of process modifications and add-on control devices used to meet the emission limits in 40 CFR 63.1382;

- b. procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each monitoring device according to the manufacturers's instructions; and
 - c. corrective actions to be taken when add-on control device parameters deviate from the limit(s) established during initial performance tests.
2. The permittee shall install, calibrate, maintain, and continuously operate a bag leak detection system.
- a. The bag leak detection system shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.
 - b. The bag leak detection system sensor shall produce output of relative PM emissions.
 - c. The bag leak detection system shall be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected and the alarm shall be located such that it can be heard by the appropriate plant personnel.
 - d. For positive pressure fabric filter systems, a bag leak detection system shall be installed in each baghouse compartment or cell. If a negative pressure or induced air baghouse is used, the bag leak detection system shall be installed downstream of the baghouse. Where multiple bag leak detection systems are required (for either type of baghouse), the system instrumentation and alarm may be shared among the monitors.
 - e. A triboelectric bag leak detection system shall be installed, operated, adjusted, and maintained in a manner consistent with the U.S. Environmental Protection Agency guidance, "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997). Other bag leak detection systems shall be installed, operated, adjusted, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.
 - f. Initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.
 - g. Following the initial adjustment, the permittee shall not adjust the range, averaging period, alarm set points, or alarm delay time except as detailed in the approved operations, maintenance, and monitoring plan required under paragraph (a) of this section. In no event shall the range be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless a responsible official as defined in 40 CFR Part 63.2 of the general provisions in subpart A of this part certifies that the baghouse has been inspected and found to be in good operating condition.

3. The operations, maintenance, and monitoring plan shall specify corrective actions to be followed in the event of a bag leak detection system alarm.
4. The permittee shall monitor the ESP according to the procedures in the operations, maintenance, and monitoring plan.
5. The operations, maintenance, and monitoring plan for the ESP shall contain the following information:
 - a. the ESP operating parameter(s), such as secondary voltage of each electrical field, to be monitored and the minimum and/or maximum value(s) that will be used to identify any operational problems;
 - b. a schedule for monitoring the ESP operating parameter(s);
 - c. record keeping procedures, consistent with the record keeping requirements of 40 CFR Part 63.1386, to show that the ESP operating parameter(s) is within the limit(s) established during the performance test; and
 - d. procedures for the proper operation and maintenance of the ESP.
6. The permittee shall monitor and record the glass pull rate on a daily basis.
7. For all control device parameters measured during the initial performance tests, the permittee may change the limits established during the initial performance tests if additional performance testing is conducted to verify that, at the new control device or process parameter levels, they comply with the applicable emission limits in 40 CFR Part 63.1382. The permittee shall conduct all additional performance tests according to the procedures of 40 CFR part 63, subpart A and in 40 CFR Part 63.1384.
8. The permittee shall develop and implement a written plan as described in 40 CFR Part 63.6(e)(3) of this part that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process modifications and control systems used to comply with the standard. In addition to the information required in 40 CFR Part 63.6(e)(3), the plan shall include:
 - a. procedures to determine and record the cause of the malfunction and the time the malfunction began and ended;
 - b. corrective actions to be taken in the event of a malfunction of a control device or process modification, including procedures for recording the actions taken to correct the malfunction or minimize emissions; and
 - c. a maintenance schedule for each control device and process modification that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.
9. The permittee shall also keep records of each event as required by 40 CFR Part 63.10(b) and record

and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in 40 CFR Part 63.10(e)(3)(iv).

10. As required by 40 CFR Part 63.10(b), the permittee shall maintain files of all information (including all reports and notifications) required by the general provisions and this subpart:
 - a. the permittee shall retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records shall be retained at the facility. The remaining 3 years of records may be retained off site;
 - b. the permittee may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche; and
 - c. the permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.
11. In addition to the general records required by 40 CFR Part 63.10(b)(2), the permittee shall maintain records of the following information:
 - a. any bag leak detection system alarms, including the date and time of the alarm, when corrective actions were initiated, the cause of the alarm, an explanation of the corrective actions taken, and when the cause of the alarm was corrected;
 - b. ESP parameter value(s) used to monitor ESP performance, including any period when the value(s) deviated from the established limit(s), the date and time of the deviation, when corrective actions were initiated, the cause of the deviation, an explanation of the corrective actions taken, and when the cause of the deviation was corrected; and
 - c. glass pull rate, including any period when the pull rate exceeded the average pull rate established during the performance test by more than 20 percent, the date and time of the exceedance, when corrective actions were initiated, the cause of the exceedance, an explanation of the corrective actions taken, and when the cause of the exceedance was corrected.

IV. Reporting Requirements

1. As required by 40 CFR Part 63.10(e)(3)(v), the permittee shall report semiannually if measured emissions are in excess of the applicable standard or a monitored parameter deviates from the levels established during the performance test. The report shall contain the information specified in 40 CFR Part 63.10(c) as well as the additional records required by the record keeping requirements of paragraph V.13 of this permit. When no deviations have occurred, the permittee shall submit a report stating that no excess emissions occurred during the reporting period.

V Testing Requirements

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Emissions Unit: GLASS MELTING FURNACE UNIT #201 (P003)

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

a. Emission Limitation -
8.7 lbs PE/hr

Applicable Compliance Method:

Compliance with the PE limitation above shall be based on the results of stack testing conducted in accordance with the methods in OAC rule 3745-17-03(B)(10).

b. Emission Limitation -
65.40 lbs SO₂/hr

Applicable Compliance Method:

Compliance with the SO₂ emission limitation above shall be based on the results of stack testing conducted in accordance with Methods 1 through 4 and 6 of 40 CFR, Part 60, Appendix A.

c. Emission Limitation -

Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance in accordance with the methods specified in OAC rule 3745-17-03 (B)(1).

d. Emission Limitation -

The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 0.25 kilogram (kg) of particulate matter (PM) per megagram (Mg) (0.5 pound [lb] of PM per ton) of glass pulled

Applicable Compliance Method:

Compliance with the PM emissions limitation above shall be based on the results of stack testing conducted in accordance with the Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

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 prior to permit expiration.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE and SO₂.
- c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

for PE: Methods 1 - 5 of 40 CFR, Part 60, Appendix A (as measured by the front-half catch only); and

for SO₂: Methods 1 through 4 and d 6 of 40 CFR, Part 60, Appendix A.

- d. For demonstrating compliance with the hourly allowable PE limitation of 8.7 lbs, the tests shall be conducted while this emissions unit and emissions unit P007 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

For demonstrating compliance with the hourly allowable SO₂ emission limitation and the 0.5 lb PE/ton of glass pulled limitation, the tests shall be conducted while this emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northwest District Office. 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest District Office 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.

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Emissions Unit: GLASS MELTING FURNACE UNIT #201 (P003)

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 Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office.

VI Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Record keeping

None

IV Reporting Requirements

None

V Testing Requirements

None

VI Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

Emissions Unit ID: GLASS MELTING FURNACE UNIT#203 (P007)

Activity Description: Glass melting furnace. Marble production.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass melt furnace, unit melter w/ electrostatic precipitator & baghouse in series; glass melting furnace unit #203	OAC rule 3745-17-11(B)(1)	8.7 lbs particulate emissions (PE)/hr (See A.I.2.a.)
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-18-06(E)(2)	65.40 lbs sulfur dioxide (SO ₂)/hr
	40 CFR Part 63 Subpart NNN	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 0.25 kilogram (kg) of particulate matter (PM) per megagram (Mg) (0.5 pound [lb] of PM per ton) of glass pulled for each new or existing glass-melting furnace.

2. Additional Terms and Conditions

- a. Emissions units P003 and P007 are subject to the "grouping" provisions of OAC rule 3745-17-11(A)(3). Therefore, the PE shall not exceed 8.7 lbs/hr from emissions units P003 and P007, combined.

II Operational Restrictions

1. The permittee shall initiate corrective action within 1 hour of an alarm from a bag leak detection system and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan. The permittee shall implement a Quality Improvement Plan (QIP) consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the bag leak detection system alarm is sounded for more than 5 percent of the total operating time in a 6-month block reporting period.
2. The permittee shall initiate corrective action within 1 hour when any 3-hour block average of the monitored electrostatic precipitator (ESP) parameter is outside the limit(s) established during the performance test as specified in 40 CFR Part 63.1384 and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.
 - a. The permittee shall implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64 subpart D when the monitored ESP parameter is outside the limit(s) established during the performance test as specified in 40 CFR Part 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.
 - b. The permittee shall operate the ESP such that the monitored ESP parameter is not outside the limit(s) established during the performance test as specified in 40 CFR part 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.
3. The permittee shall operate each glass-melting furnace such that the glass pull rate does not exceed, by more than 20 percent, the average glass pull rate established during the performance test as specified in 40 CFR Part 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

III. Monitoring and/or Record keeping

1. The permittee shall prepare for each glass melting furnace subject to the provisions 40 CFR 63.1380, a written operations, maintenance, and monitoring plan. The plan shall be submitted to the Director for review and approval as part of the application for a part 70 permit. The plan shall include the following information:
 - a. procedures for the proper operation and maintenance of process modifications and add-on control devices used to meet the emission limits in 40 CFR 63.1382;
 - b. procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each

- monitoring device according to the manufacturers's instructions; and
- c. corrective actions to be taken when add-on control device parameters deviate from the limit(s) established during initial performance tests.
2. The permittee shall install, calibrate, maintain, and continuously operate a bag leak detection system.
- a. The bag leak detection system shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.
 - b. The bag leak detection system sensor shall produce output of relative PM emissions.
 - c. The bag leak detection system shall be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected and the alarm shall be located such that it can be heard by the appropriate plant personnel.
 - d. For positive pressure fabric filter systems, a bag leak detection system shall be installed in each baghouse compartment or cell. If a negative pressure or induced air baghouse is used, the bag leak detection system shall be installed downstream of the baghouse. Where multiple bag leak detection systems are required (for either type of baghouse), the system instrumentation and alarm may be shared among the monitors.
 - e. A triboelectric bag leak detection system shall be installed, operated, adjusted, and maintained in a manner consistent with the U.S. Environmental Protection Agency guidance, "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997). Other bag leak detection systems shall be installed, operated, adjusted, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.
 - f. Initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.
 - g. Following the initial adjustment, the permittee shall not adjust the range, averaging period, alarm set points, or alarm delay time except as detailed in the approved operations, maintenance, and monitoring plan required under paragraph (a) of this section. In no event shall the range be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless a responsible official as defined in 40 CFR Part 63.2 of the general provisions in subpart A of this part certifies that the baghouse has been inspected and found to be in good operating condition.
3. The operations, maintenance, and monitoring plan shall specify corrective actions to be followed in the event of a bag leak detection system alarm.
4. The permittee shall monitor the ESP according to the procedures in the operations, maintenance, and monitoring plan.

5. The operations, maintenance, and monitoring plan for the ESP shall contain the following information:
 - a. the ESP operating parameter(s), such as secondary voltage of each electrical field, to be monitored and the minimum and/or maximum value(s) that will be used to identify any operational problems;
 - b. a schedule for monitoring the ESP operating parameter(s);
 - c. record keeping procedures, consistent with the record keeping requirements of 40 CFR Part 63.1386, to show that the ESP operating parameter(s) is within the limit(s) established during the performance test; and
 - d. procedures for the proper operation and maintenance of the ESP.
6. The permittee shall monitor and record the glass pull rate on *a daily* basis.
7. For all control device parameters measured during the initial performance tests, the permittee may change the limits established during the initial performance tests if additional performance testing is conducted to verify that, at the new control device or process parameter levels, they comply with the applicable emission limits in 40 CFR Part 63.1382. The permittee shall conduct all additional performance tests according to the procedures of 40 CFR part 63, subpart A and in 40 CFR Part 63.1384.
8. The permittee shall develop and implement a written plan as described in 40 CFR Part 63.6(e)(3) of this part that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process modifications and control systems used to comply with the standard. In addition to the information required in 40 CFR Part 63.6(e)(3), the plan shall include:
 - a. procedures to determine and record the cause of the malfunction and the time the malfunction began and ended;
 - b. corrective actions to be taken in the event of a malfunction of a control device or process modification, including procedures for recording the actions taken to correct the malfunction or minimize emissions; and
 - c. a maintenance schedule for each control device and process modification that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.
9. The permittee shall also keep records of each event as required by 40 CFR Part 63.10(b) and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in 40 CFR Part 63.10(e)(3)(iv).
10. As required by 40 CFR Part 63.10(b), the permittee shall maintain files of all information (including

all reports and notifications) required by the general provisions and this subpart:

- a. the permittee shall retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records shall be retained at the facility. The remaining 3 years of records may be retained off site;
 - b. the permittee may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche; and
 - c. the permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.
11. In addition to the general records required by 40 CFR Part 63.10(b)(2), the permittee shall maintain records of the following information:
- a. any bag leak detection system alarms, including the date and time of the alarm, when corrective actions were initiated, the cause of the alarm, an explanation of the corrective actions taken, and when the cause of the alarm was corrected;
 - b. ESP parameter value(s) used to monitor ESP performance, including any period when the value(s) deviated from the established limit(s), the date and time of the deviation, when corrective actions were initiated, the cause of the deviation, an explanation of the corrective actions taken, and when the cause of the deviation was corrected; and
 - c. glass pull rate, including any period when the pull rate exceeded the average pull rate established during the performance test by more than 20 percent, the date and time of the exceedance, when corrective actions were initiated, the cause of the exceedance, an explanation of the corrective actions taken, and when the cause of the exceedance was corrected.

IV Reporting Requirements

1. As required by 40 CFR Part 63.10(e)(3)(v), the permittee shall report semiannually if measured emissions are in excess of the applicable standards or a monitored parameter deviates from the levels established during the performance test. The report shall contain the information specified in 40 CFR Part 63.10(c) as well as the additional records required by the record keeping requirements of paragraph V.13 of this permit. When no deviations have occurred, the permittee shall submit a report stating that no excess emissions occurred during the reporting period.

V Testing Requirements

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

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Emissions Unit: GLASS MELTING FURNACE UNIT#203 (P007)

- a. Emission Limitation -
8.7 lbs PE/hr

Applicable Compliance Method:

Compliance with the PE limitation above shall be based on the results of stack testing conducted in accordance with the methods in OAC rule 3745-17-03(B)(10).

- b. Emission Limitation -
65.40 lbs SO₂/hr

Applicable Compliance Method:

Compliance with the SO₂ emission limitation above shall be based on the results of stack testing conducted in accordance with Methods 1 through 4 and 6 of 40 CFR, Part 60, Appendix A.

- c. Emission Limitation -

Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance in accordance with the methods specified in OAC rule 3745-17-03 (B)(1).

- d. Emission Limitation -

The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 0.25 kilogram (kg) of particulate matter (PM) per megagram (Mg) (0.5 pound [lb] of PM per ton) of glass pulled

Applicable Compliance Method:

Compliance with the PM emissions limitation above shall be based on the results of stack testing conducted in accordance with the Methods 1 - 5 of 40 CFR, Part 60, Appendix A

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 prior to permit expiration.

- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE and SO₂.
- c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

for PE: Methods 1- 5 of 40 CFR, Part 60, Appendix A (as measured by the front-half catch only); and

for SO₂: Methods 1 through 4 and d 6 of 40 CFR, Part 60, Appendix A.

- d. For demonstrating compliance with the hourly allowable PE limitation of 8.7 lbs, the tests shall be conducted while this emissions unit and emissions unit P003 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

For demonstrating compliance with the hourly allowable SO₂ emission limitation and the 0.5 lb PE/ton of glass pulled limitation, the tests shall be conducted while this emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

- 2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northwest District Office. 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office.

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Emissions Unit: GLASS MELTING FURNACE UNIT#203 (P007)

VI Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Record keeping

None

IV Reporting Requirements

None

V Testing Requirements

None

VI Miscellaneous Requirements

None

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
Facility ID: 03-20-01-0003

Emissions Unit: FIBERGLASS FORMING AND COLLECTION UNIT #23 (P008)

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

Emissions Unit ID: FIBERGLASS FORMING AND COLLECTION UNIT #23 (P008)

Activity Description: This process operates by melting glass and attenuating it in to glass fibers.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming and collection unit #23	OAC rule 3745-17-11(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).
	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	See A.II.1.
	OAC rule 3745-31-10 through 20 (PTI #03-13943)	See A.I.2.a. 74.73 lbs carbon monoxide (CO)/hr
	OAC rule 3745-31-05(D) (PTI #03-13943)	262.87 tons CO per rolling 12-month period based upon a restriction on glass pull rates. 29.73 tons particulate emissions (PE) per rolling 12-month period based upon a restriction on glass pull rates (see A.I.2.c). 21.41 tons organic compounds (OC)per

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<p>OAC rule 3745-31-05(A)(3) (PTI #03-13943)</p> <p>40 CFR, Part 63, Subpart NNN</p> <p>OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)</p> <p>OAC rule 3745-18-06(E)</p>	<p>rolling 12-month period based upon a restriction on glass pull rates (see A.I.2.d) 16.84 tons nitrogen oxides (NOx) per rolling 12-month period based upon a restriction on glass pull rates 1.04 tons fluorides per rolling 12-month period based upon a restriction on glass pull rates.</p> <p>See A.I.2.b.</p> <p>9.92 lbs PE/hr 5.12 lbs OC/hr 6.32 lbs NOx/hr 0.39 lb fluoride/hr</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules thru 20, 3745-17-07(A), 3745-21-07(G), 3745-31-05(D), 3745-23-06(B) and 3745-18-06(E).</p> <p>See A.I.2.e.</p> <p>See A.I.2.f.</p> <p>none, exempt pursuant to OAC rule 3745-18-06(C) (see A.I.2.g)</p>
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2. Additional Terms and Conditions

- a. Based on the “Prevention of Significant Deterioration” (PSD) analysis conducted to ensure the application of “Best Available Control Technology” (BACT), it has been determined that no control technologies for CO were cost effective.
- b. The permittee has requested federally enforceable restrictions to limit the potential to emit from the emissions units contained in permit to install (PTI) #03-13943 by limiting the annual glass pull rate for the two highest emitting product groups manufactured in this emissions unit (see A.II.2 & A.II.3).

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- c. All PE is assumed to be in the form of PM_{10} .
- d. For purposes of federal enforceability the restriction of OC's effectively restricts volatile organic compounds (VOC).
- e. 40 CFR, Part 63, Subpart NNN is not applicable to this emissions unit because this is a modification to an existing source that produces bonded, heavy-density product.
- f. 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 No. 03-13943.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- g. There are no sulfur dioxide emission limitations established by OAC Chapter 3745-18 for this emissions unit because the process weight rate is less than 1,000 pounds/hour.
- h. The hourly OC, NOX and fluorides emission limitations were established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, it is not necessary to establish monitoring, record keeping and reporting requirements to ensure compliance with these limitations.

II. Operational Restrictions

- 6. The use of any liquid organic material that is a photochemically reactive material in this emissions

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Emissions Unit: FIBERGLASS FORMING AND COLLECTION UNIT
#23 (P008)

unit, as defined in OAC rule 3745-21-01(C)(5), is prohibited.

2. The maximum annual glass pull rates for low-medium efficiency products shall not exceed 780,000 pounds, based upon a rolling 12-month summation of the monthly low-medium efficiency product glass pull rates.

To ensure enforceability during the first 12 calendar months of operation under the provisions of PTI # 03-13943, the permittee shall not exceed the glass pull rates specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Glass Pull rates (in pounds)</u>
1	79,200
1-2	144,000
1-3	201,600
1-4	259,200
1-5	316,800
1-6	374,400
1-7	432,000
1-8	489,600
1-9	561,600
1-10	633,600
1-11	705,600
1-12	780,000

After the first 12 calendar months of operation under the provisions of PTI # 03-13943, compliance with the annual glass pull rates limitation shall be based upon a rolling, 12-month summation of the monthly low-medium efficiency product glass pull rates.

3. The maximum annual glass pull rates for high efficiency products shall not exceed 813,120 pounds, based upon a rolling 12-month summation of the monthly high efficiency products glass pull rates.

To ensure enforceability during the first 12 calendar months of operation under the provisions of PTI # 03-13943, the permittee shall not exceed the glass pull rates specified in the following table:

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<u>Month(s)</u>	<u>Maximum Allowable Cumulative Glass Pull rates (in pounds)</u>
1	61,459
1-2	129,254
1-3	200,218
1-4	271,181
1-5	342,144
1-6	413,107
1-7	484,070
1-8	555,034
1-9	619,661
1-10	684,288
1-11	748,915
1-12	813,120

After the first 12 calendar months of operation under the provisions of PTI # 03-13943, compliance with the annual glass pull rates limitation shall be based upon a rolling, 12-month summation of the monthly high efficiency products glass pull rates.

III Monitoring and/or Record keeping

1. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from 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 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 minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible

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emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. Notwithstanding the frequency of the record keeping and monitoring requirements specified in section A.III.1, the permittee may reduce the frequency of visual observations for this emissions from at least 5 days per week to weekly readings if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1.

The permittee shall revert to 5 days per week readings if any abnormal visible emissions are observed.

3. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the company identification for each liquid organic material employed; and
 - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.
4. The permittee shall maintain the following monthly records for this emissions units:
 - a. the company identification for each product manufactured;
 - b. documentation of the type and efficiency of each product manufactured;
 - c. the glass pull rates for each product manufactured, in pounds;
 - d. for the first 12 months of operation under the provisions of PTI # 03-13943, the cumulative monthly glass pull rates for high efficiency products manufactured, in pounds;

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- e. for the first 12 months of operation under the provisions of PTI # 03-13943, the cumulative monthly glass pull rates for low-medium efficiency products manufactured, in pounds;
 - f. after the first 12 months of operation under the provisions of PTI # 03-13943, the rolling, 12-month summation of the monthly glass pull rates for high efficiency products manufactured, in pounds; and
 - g. after the first 12 months of operation under the provisions of PTI # 03-13943, the rolling, 12-month summation of the monthly glass pull rates for low-medium efficiency products manufactured, in pounds.
5. In addition to the above information, the permittee shall also collect and record the following information each month for this emissions unit:
- a. the total glass pull rates for each product group manufactured, in pounds;
 - b. the calculated emission rates for CO, PE, OC, NO_x and fluorides (A.III.5.a x product-specific emission factor*) for each product group manufactured, in tons;
 - c. the total emission rates for CO, PE, OC, NO_x and fluorides for all the product groups manufactured (summation of A.III.5.b for all products), in tons; and
 - d. the rolling, 12-month summations of the monthly CO, PE, OC, NO_x and fluorides emission rates, in tons.

* The product-specific emission factors are specified in PTI application #03-13943 submitted to the Ohio EPA, Northwest District Office on December 12, 2002.

IV Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall notify the Director (the Ohio EPA, Northwest District Office) in writing of any

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monthly record showing the use of any photochemically reactive material in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Northwest District Office) within 30 days following the end of the calendar month.

3. The permittee shall submit quarterly deviation (excursion) reports that identify exceedances of the following:
 - a. the rolling, 12-month glass pull rates limitations for low-medium and high efficiency products of 780,000 and 813,120 tons, respectively;
 - b. for the first 12 calendar months of operation following the issuance of PTI # 03-13943, all exceedances of the maximum allowable cumulative glass pull rates for low-medium and high efficiency products; and
 - c. the rolling, 12-month emission limitations for CO, PE, OC, NO_x and fluorides of 262.87, 29.73, 21.41, 16.84 and 1.04 tons, respectively.

The quarterly deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

V Testing Requirements

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

a. Emission Limitation:

The maximum annual glass pull rate for low-medium efficiency products shall not exceed 780,000 pounds, based upon a rolling, 12-month summation of the monthly low-medium efficiency products glass pull rates.

Applicable Compliance Method:

Compliance with the annual glass pull rate restriction above shall be demonstrated by the record keeping requirements specified in section A.III of this permit.

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b. Emission Limitation:

The maximum annual glass pull rate for high efficiency products shall not exceed 813,120 pounds, based upon a rolling, 12-month summation of the monthly high efficiency products glass pull rates.

Applicable Compliance Method:

Compliance with the annual glass pull rate restriction above shall be demonstrated by the record keeping requirements specified in section A.III of this permit

c. Emission Limitations:

74.73 lbs CO/hr, 262.87 tons CO per rolling, 12-month period

Applicable Compliance Method:

Compliance with the hourly CO emission limitation be demonstrated based on the results of emission testing conducted in accordance with Methods 1 - 4 and 10 of 40 CFR, Part 60, Appendix A.

Compliance with the annual CO emission limitation above shall be demonstrated by the record keeping requirements specified in section A.III.5 of this permit.

d. Emission Limitations:

9.92 lbs PE/hr, 29.73 tons PE per rolling 12-month period

Applicable Compliance Method:

Compliance with the hourly PE limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

Compliance with the annual PE limitation above shall be demonstrated by the record keeping requirements specified in section A.III.5 of this permit

e. Emission Limitations:

5.12 lbs OC/hr, 21.41 tons OC per rolling 12-month period

Applicable Compliance Method:

The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (tons/hr) by the emission factor for OC (lbs OC/ton)*.

If required, the permittee shall demonstrate compliance with the hourly OC emission limitation in accordance with Methods 1 - 4 and 18, 25 or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

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Compliance with the annual OC emission limitation shall be demonstrated by the Record keeping requirements specified in section A.III.5 of this permit.

* The emission factor is specified in PTI application #03-13943 submitted to the Ohio EPA, Northwest District Office on December 12, 2002.

f. Emission Limitations:

6.32 lbs NOx/hr, 16.84 tons NOx per rolling, 12-month period

Applicable Compliance Method:

The hourly allowable NOx emission limitation was established by multiplying the maximum glass pull rate (tons/hr) by the emission factor for NOx (lbs NOx/ton)*.

If required, the permittee shall demonstrate compliance with the hourly NOx emission limitation in accordance with Methods 1 - 4 and 7 of 40 CFR, Part 60, Appendix A.

Compliance with the annual NOx emission limitation shall be demonstrated by the record keeping requirements specified in section A.III.5 of this permit.

* The emission factor is specified in PTI application #03-13943 submitted to the Ohio EPA, Northwest District Office on December 12, 2002

g. Emission Limitations

0.39 lb fluorides/hr, 1.04 tons fluorides per rolling, 12-month period

Applicable Compliance Method:

The hourly allowable fluorides emission limitation was established by multiplying the maximum glass pull rate (tons/hr) by the emission factor for fluorides (lbs fluorides/ton)*.

If required, the permittee shall demonstrate compliance with the hourly fluorides emission limitation in accordance with Methods 1 - 4 and 13 or 26, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the annual fluorides emission limitation shall be demonstrated by the Record keeping requirements specified in section A.III.4 of this permit.

** The emission factor is specified in PTI application #03-13943 submitted to the Ohio EPA, Northwest District Office on December 12, 2002

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h. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance in accordance with the methods specified in OAC rule 3745-17-03 (B)(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 following the first day this emissions unit commences modified operations as allowed for by PTI number 03-13943.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE and CO.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s):
 - i. CO: Methods 1 - 4 & 10 of 40 CFR, Part 60, Appendix A; and
 - ii. PE: Methods 1 - 5 (including the back half of the sampling train) of 40 CFR, Part 60, Appendix A.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity for the worst case scenario (the emissions unit should be tested while producing a high efficiency product at its maximum glass pull rates as indicated in PTI application 03-13943), unless otherwise specified or approved by the Ohio EPA, Northwest District Office.
3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northwest District Office. 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest District Office 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.

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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 Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office.

VI. Miscellaneous Requirements

1. Prevention of Significant Deterioration (PSD)

This emissions unit is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21, and the Ohio air permitting rule attainment provisions, OAC rules 3745-31-10 thru -20. The Ohio Environmental Protection Agency has been granted approval to apply and enforce the PSD regulations. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming and collection unit #23	None	None

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Record keeping

None

IV Reporting Requirements

None

V Testing Requirements

None

VI Miscellaneous Requirements

Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the resulting increase in maximum annual emissions for each toxic compound for emissions units P008 and P009 combined (as allowed by PTI #03-13943) will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to result in an increase above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

Emissions Unit ID: FIBERGLASS FORMING AND COLLECTION UNIT #24 (P009)

Activity Description: This process operates by melting glass and attenuating it in to glass fibers.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming and collection unit #24	OAC rule 3745-31-10 through 20 (PTI #03-13943)	See A.I.2.a. 99.63 lbs carbon monoxide (CO)/hr
	OAC rule 3745-31-05(D) (PTI #03-13943)	See A.I.2.b. 246.69 tons CO per rolling, 12-month period based upon a restriction on glass pull rates 34.89 tons particulate emissions (PE) per rolling, 12-month period based upon a restriction on glass pull rates (see A.I.2.c) 26.29 tons organic compounds (OC) per rolling, 12-month period based upon a restriction on glass pull rates (see A.I.2.d) 17.56 tons nitrogen oxides (NOx) per rolling, 12-month period based upon a restriction on glass pull rates 1.10 tons fluorides per rolling, 12-month period

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OAC rule 3745-31-05(A)(3) (PTI# 03-13943)	based upon a restriction on glass pull rates 8.28 lbs PE/hr 6.82 lbs OC/hr 4.14 lbs NOx/hr 0.26 lb fluorides/hr The requirements of this rule also include compliance with the requirements of OAC rules 3745-31-10 thru 20, 3745-17-07(A), 3745-21-07(G), 3745-31-05(D), 3745-23-06(B) and 3745-18-06(E).
OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
OAC rule 3745-17-11(B)	See A.I.2.e
OAC rule 3745-21-07(G)	Exempt (See A.II.1.)
40 CFR, Part 63, Subpart NNN	See A.I.2.f.
OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2.g.
OAC rule 3745-18-06(E)	none, exempt pursuant to OAC rule 3745-18-06(C) (see A.I.2.h)

2. Additional Terms and Conditions

- a Based on the “Prevention of Significant Deterioration” (PSD) analysis conducted to ensure the application of “Best Available Control Technology” (BACT), it has been determined that no control technologies for CO were cost effective.
- b The permittee has requested federally enforceable restrictions to limit the potential to emit from the emissions units contained in permit to install (PTI) #03-03943 by limiting

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the annual glass pull rate for the two highest emitting product groups manufactured in this emissions unit (See A.II.2 & A.II.3).

- c. All PE is assumed to be in the form of PM_{10} .
- d. For purposes of federal enforceability the restriction of OC's effectively restricts volatile organic compounds (VOC).
- e. The emission limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).
- f. 40 CFR, Part 63, Subpart NNN is not applicable to this emissions unit because this is a modification to an existing source produces bonded, heavy-density product.
- g. 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 No. 03-13943.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.
- h. There are no sulfur dioxide emission limitations established by OAC Chapter 3745-18 for this emissions unit because the process weight rate is less than 1,000 pounds/hour.
- i. The hourly OC, NOX and fluorides emission limitations were established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, it is not necessary to establish monitoring, record keeping and reporting requirements to ensure compliance with these limitations.

II Operational Restrictions

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1. The use of any liquid organic material that is a photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01(C)(5), is prohibited.
2. The maximum annual glass pull rates for Aircraft and Aerospace (AA) products shall not exceed 1,200,000, based upon a rolling, 12-month summation of the monthly AA products glass pull rates.

To ensure enforceability during the first 12 calendar months of operation under the provisions of PTI # 03-13943, the permittee shall not exceed the glass pull rates specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Glass Pull rates (in pounds)</u>
1	100,800
1-2	201,600
1-3	302,400
1-4	403,200
1-5	504,000
1-6	604,800
1-7	705,600
1-8	806,400
1-9	907,200
1-10	1,008,000
1-11	1,104,000
1-12	1,200,000

After the first 12 calendar months of operation under the provisions of PTI # 03-13943, compliance with the annual glass pull rates restriction shall be based upon a rolling, 12-month summation of the monthly AA products glass pull rates.

3. The maximum annual glass pull rates for high efficiency products shall not exceed 485,760 pounds, based upon a rolling, 12-month summation of the monthly high efficiency products glass pull rates.

To ensure enforceability during the first 12 calendar months of operation under the provisions of

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PTI #03-13943, the permittee shall not exceed the glass pull rates specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Glass Pull rates (in pounds)</u>
1	39,706
1-2	79,411
1-3	119,117
1-4	158,822
1-5	198,528
1-6	238,234
1-7	277,939
1-8	317,645
1-9	357,350
1-10	397,056
1-11	440,986
1-12	485,760

After the first 12 calendar months of operation under the provisions of PTI # 03-13943, compliance with the annual glass pull rates restriction shall be based upon a rolling, 12-month summation of the monthly high efficiency products glass pull rates.

III. Monitoring and/or Record keeping

1. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from 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 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

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- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- 2. Notwithstanding the frequency of the monitoring and record keeping requirements specified in section A.III.1, the permittee may reduce the frequency of visual observations for this emissions from at least 5 days per week to weekly readings if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1.

The permittee shall revert to 5 days per week readings if any abnormal visible emissions are observed.

- 3. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the company identification for each liquid organic material employed; and
 - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.
- 4. The permittee shall maintain the following monthly records for this emissions units:
 - a. the company identification for each product manufactured;

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- b. documentation of the type and efficiency of each product manufactured;
 - c. the glass pull rates for each product manufactured, in pounds;
 - d. for the first 12 months of operation under the provisions of PTI # 03-13943, the cumulative monthly glass pull rates for high efficiency products manufactured, in pounds;
 - e. for the first 12 months of operation under the provisions of PTI # 03-13943, the cumulative monthly glass pull rates for AA products manufactured, in pounds;
 - f. after the first 12 months of operation under the provisions of PTI # 03-13943, the rolling, 12-month summation of the monthly glass pull rates for high efficiency products manufactured, in pounds; and
 - g. after the first 12 months of operation under the provisions of PTI # 03-13943, the rolling, 12-month summation of the monthly glass pull rates for AA products manufactured, in pounds.
5. In addition to the above information, the permittee shall also collect and record the following information each month for this emissions unit:
- a. the total glass pull rates for each product group manufactured, in pounds;
 - b. the calculated emission rates for CO, PE, OC, NO_x and fluorides (5.a x product-specific emission factor*) for each product group manufactured, in tons;
 - c. the total emission rates for CO, PE, OC, NO_x and fluorides for all product groups manufactured (summation of 5.b for all products) in tons; and
 - d. the rolling, 12-month summations of the CO, PE, OC, NO_x and fluorides emission rates, in tons.

* These emission factors are specified in PTI application #03-13943 submitted to the Ohio EPA, Northwest District Office on December 12, 2002.

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IV Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall notify the Director (the Ohio EPA, Northwest District Office) in writing of any monthly record showing the use of any photochemically reactive material in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Northwest District Office) within 30 days following the end of the calendar month.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the following:
 - a. the rolling, 12-month glass pull rates limitations for AA and high efficiency products of 1,200,000 and 485,760 tons, respectively;
 - b. for the first 12 calendar months of operation following the issuance of PTI # 03-13943, all exceedances of the maximum allowable cumulative glass pull rates for AA and high efficiency products; and
 - c. the rolling, 12-month emission limitations for CO, PE, OC, NO_x and fluorides of 246.69, 34.89, 26.29, 17.56 and 1.10 tons, respectively.

The quarterly deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

V. Testing Requirements

1. 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 following the first day this emissions unit commences modified operations as allowed for by PTI number 03-13943.

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- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE and CO.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s):
 - i. CO: Methods 1 - 4 & 10 of 40 CFR, Part 60, Appendix A; and
 - ii. PE: Methods 1 - 5 (including the back half of the sampling train) of 40 CFR, Part 60, Appendix A.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity for the worst case scenario (the emissions unit should be tested while producing a high efficiency product at it's maximum glass pull rates as indicated in PTI application 03-13943), unless otherwise specified or approved by the Ohio EPA, Northwest District Office.
2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northwest District Office. 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office

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

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a. Emission Limitation:

The maximum annual glass pull rates for AA products shall not exceed 1,200,00 pounds, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the annual glass pull rate restriction above shall be demonstrated by the record keeping requirements specified in section A.III of this permit.

b. Emission Limitation:

The maximum annual glass pull rates for high efficiency products shall not exceed 485,760 pounds, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the annual glass pull rate restriction above shall be demonstrated by the record keeping requirements specified in section A.III of this permit.

c. Emission Limitations:

99.63 lbs CO/hr, 246.69 tons CO per rolling, 12-month period

Applicable Compliance Method:

Compliance with the hourly CO emission limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1 - 4 and 10 of 40 CFR, Part 60, Appendix A.

Compliance with the annual CO emission limitation above shall be demonstrated by the record keeping requirements specified in section A.III.5 of this permit.

d. Emission Limitations:

8.28 lbs PE/hr, 34.89 tons PE per rolling, 12-month period

Applicable Compliance Method:

Compliance with the hourly PE limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

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Compliance with the annual PE limitation above shall be demonstrated by the record keeping requirements specified in section A.III.5 of this permit.

e. Emission Limitations:

6.82 lbs OC/hr, 26.29 tons OC per rolling, 12-month period

Applicable Compliance Method:

The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (tons/hr) by the emission factor for OC (lbs OC/ton).*

If required, the permittee shall demonstrate compliance with the hourly OC emission limitation in accordance with Methods 1 - 4 and 18, 25 or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the annual OC emission limitation shall be demonstrated by the Record keeping requirements specified in section A.III.5 of this permit.

*The emission factor is specified in PTI application #03-13943 submitted to the Ohio EPA, Northwest District Office on December 12, 2002.

f. Emission Limitations:

4.14 lbs NOx/hr, 17.56 tons NOx per rolling, 12-month period

Applicable Compliance Method:

The hourly allowable NOx emission limitation was established by multiplying the maximum glass pull rate (tons/hr) by the emission factor for NOx (lbs NOx/ton).*

If required, the permittee shall demonstrate compliance with the hourly NOx emission limitation in accordance with Methods 1 - 4 and 7 of 40 CFR, Part 60, Appendix A.

Compliance with the annual NOx emission limitation shall be demonstrated by the record keeping requirements specified in section A.III.5 of this permit.

* The emission factor is specified in PTI application #03-13943 submitted to the Ohio EPA, Northwest District Office on December 12, 2002.

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g. Emission Limitation:

0.26 lbs fluorides/hr, 1.10 tons fluorides per rolling, 12-month period

Applicable Compliance Method:

The hourly allowable fluorides emission limitation was established by multiplying the maximum glass pull rate (tons/hr) by the emission factor for fluorides (lbs fluorides/ton).*

If required, the permittee shall demonstrate compliance with the hourly fluorides emission limitation in accordance with Methods 1 - 4 and 13 r 26, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the annual fluorides emission limitation shall be demonstrated by the Record keeping requirements specified in section A.III.5 of this permit.

* The emission factor is specified in PTI application #03-13943 submitted to the Ohio EPA, Northwest District Office on December 12, 2002.

h. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance in accordance with the methods specified in OAC rule 3745-17-03 (B)(1).

VI Miscellaneous Requirements

1. Prevention of Significant Deterioration (PSD)

This source is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21, and the Ohio air permitting rule attainment provisions, OAC rules 3745-31-10 thru - 20. The Ohio Environmental Protection Agency has been granted approval to apply and enforce the PSD regulations. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
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Emissions Unit: FIBERGLASS FORMING AND COLLECTION UNIT
#24 (P009)

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming and collection unit #24	None	None

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Record keeping

None

IV Reporting Requirements

None

V Testing Requirements

None

VI Miscellaneous Requirements

None

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
Facility ID: 03-20-01-0003

Emissions Unit: FIBERGLASS FORMING AND COLLECTION UNIT #25 (P010)

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

Emissions Unit ID: FIBERGLASS FORMING AND COLLECTION UNIT #25 (P010)

Activity Description: This process operates by melting glass and attenuating it in to glass fibers.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming and collection unit #25	OAC rule 3745-17-11(B)(1)	See A.I.2.b.
	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	exempt (See A.I.2.a.)

2. Additional Terms and Conditions

- a. This emissions unit was installed prior to February 15, 1972. Therefore, there are no applicable regulations/emission limitations for organic compounds for this emissions unit.
- b. PE from this emissions unit shall be less than 10 lbs/hr.*

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#25 (P010)

*The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds/hour (the permittee has demonstrated this based on stack testing). Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 lbs PE/hr. However, to ensure that Figure II will not be applicable, the permittee has agreed to accept the PE limitation stated above (less than 10 lbs/hr).

II Operational Restrictions

None

III Monitoring and/or Record keeping

1. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from 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 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 minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. Notwithstanding the frequency of the record keeping and monitoring requirements specified in section A.III.1, the permittee may reduce the frequency of visual observations for this emissions from at least 5 days per week to weekly readings if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions;

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
Facility ID: 03-20-01-0003

Emissions Unit: FIBERGLASS FORMING AND COLLECTION UNIT
#25 (P010)

and

- b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1.

The permittee shall revert to 5 days per week readings if any abnormal visible emissions are observed.

IV Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V Testing Requirements

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

- a. Emission Limitation -
less than 10 lbs PE/hr

Applicable Compliance Method:

Compliance with the PE limitation above shall be based on the results of stack testing conducted in accordance with the methods in OAC rule 3745-17-03(B)(10).

- b. Emission Limitation -
Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
Facility ID: 03-20-01-0003

Emissions Unit: FIBERGLASS FORMING AND COLLECTION UNIT
#25 (P010)

If required, the permittee shall demonstrate compliance in accordance with the methods specified in OAC rule 3745-17-03 (B)(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 prior to permit expiration.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 - 5 of 40 CFR, Part 60, Appendix A (as measured by the front-half catch only).
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northwest District Office. 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office.

VI Miscellaneous Requirements

None

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
Facility ID: 03-20-01-0003

Emissions Unit: FIBERGLASS FORMING AND COLLECTION UNIT
#25 (P010)

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Record keeping

None

IV Reporting Requirements

None

V Testing Requirements

None

VI Miscellaneous Requirements

None

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
Facility ID: 03-20-01-0003

Emissions Unit: FIBERGLASS FORMING AND COLLECTION UNIT
#26 (P011)

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

Emissions Unit ID: FIBERGLASS FORMING AND COLLECTION UNIT #26 (P011)

Activity Description: This process operates by melting glass and attenuating it in to glass fibers.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming and collection unit #26	OAC rule 3745-17-11(B)(1)	See A.I.2.b.
	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	exempt (See A.I.2.a.)

2. Additional Terms and Conditions

- a. This emissions unit was installed prior to February 15, 1972. Therefore, there are no applicable regulations/emission limitations for organic compounds for this emissions unit.
- b. PE from this emissions unit shall be less than 10 lbs/hr.*

*The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds/hour (the

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
Facility ID: 03-20-01-0003

Emissions Unit: FIBERGLASS FORMING AND COLLECTION UNIT
#26 (P011)

permittee has demonstrated this based on stack testing). Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 lbs PE/hr. However, to ensure that Figure II will not be applicable, the permittee has agreed to accept the PE limitation stated above (less than 10 lbs/hr).

II Operational Restrictions

None

III Monitoring and/or Record keeping

1. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from 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 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 minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. Notwithstanding the frequency of the monitoring requirements specified in section A.III.1, the permittee may reduce the frequency of visual observations for this emissions from at least 5 days per week to weekly readings if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions;

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Emissions Unit: FIBERGLASS FORMING AND COLLECTION UNIT
#26 (P011)

and

- b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1.

The permittee shall revert to 5 days per week readings if any abnormal visible emissions are observed.

IV Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V Testing Requirements

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

- a. Emission Limitation -
less than 10 lbs PE/hr

Applicable Compliance Method:

Compliance with the PE limitation above shall be based on the results of stack testing conducted in accordance with the methods in OAC rule 3745-17-03(B)(10).

- b. Emission Limitation -
Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
Facility ID: 03-20-01-0003

Emissions Unit: FIBERGLASS FORMING AND COLLECTION UNIT
#26 (P011)

If required, the permittee shall demonstrate compliance in accordance with the methods specified in OAC rule 3745-17-03 (B)(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 prior to permit expiration.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 - 5 of 40 CFR, Part 60, Appendix A.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northwest District Office. 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office.

VI Miscellaneous Requirements

None

B. State Only Enforceable Section

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
Facility ID: 03-20-01-0003

Emissions Unit: FIBERGLASS FORMING AND COLLECTION UNIT
#26 (P011)

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Record keeping

None

IV Reporting Requirements

None

V Testing Requirements

None

VI Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

Emissions Unit ID: FIBERGLASS FORMING AND COLLECTION UNIT #27 (P012)

Activity Description: This process operates by melting glass and attenuating it in to glass fibers.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming and collection unit #27	OAC rule 3745-17-11(B)(1)	See A.I.2.b.
	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	exempt (See A.I.2.a.)

2. Additional Terms and Conditions

- a. This emissions unit was installed prior to February 15, 1972. Therefore, there are no applicable regulations/emission limitations for organic compounds for this emissions unit.
- b. PE from this emissions unit shall be less than 10 lbs/hr.*

*The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds/hour (the

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
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#27 (P012)

permittee has demonstrated this based on stack testing). Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 lbs PE/hr. However, to ensure that Figure II will not be applicable, the permittee has agreed to accept the PE limitation stated above (less than 10 lbs/hr).

II Operational Restrictions

None

III Monitoring and/or Record keeping

1. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from 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 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 minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. Notwithstanding the frequency of the monitoring requirements specified in section A.III.1, the permittee may reduce the frequency of visual observations for this emissions from at least 5 days per week to weekly readings if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions;

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Emissions Unit: FIBERGLASS FORMING AND COLLECTION UNIT
#27 (P012)

and

- b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1.

The permittee shall revert to 5 days per week readings if any abnormal visible emissions are observed.

IV Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V Testing Requirements

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

- a. Emission Limitation -
less than 10 lbs PE/hr

Applicable Compliance Method:

Compliance with the PE limitation above shall be based on the results of emission testing conducted in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

- b. Emission Limitation -
Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance in accordance with the methods specified in OAC rule 3745-17-03 (B)(1).

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Emissions Unit: FIBERGLASS FORMING AND COLLECTION UNIT
#27 (P012)

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 prior to permit expiration.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 - 5 of 40 CFR, Part 60, Appendix A (as measured by the front-half catch only).
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northwest District Office. 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office.

VI Miscellaneous Requirements

None

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
Facility ID: 03-20-01-0003

Emissions Unit: FIBERGLASS FORMING AND COLLECTION UNIT
#27 (P012)

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Record keeping

None

IV Reporting Requirements

None

V Testing Requirements

None

VI Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

Emissions Unit ID: CURING OVEN UNIT #23 (P016)

Activity Description: This oven cures fiberglass products.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass curing operation with high energy air filtration (HEAF) units; curing unit #23	OAC rule 3745-17-11(B)(1)	1.66 lbs particulate emissions (PE)/hr
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	exempt (See A.I.2.b.)

2. Additional Terms and Conditions

- a. PE from this emissions unit shall be vented to either one of the two HEAF units (North or South HEAF units).
- b. This emissions unit was installed prior to February 15, 1972. Therefore, there are no applicable regulations/emission limitations for organic compounds for this emissions unit.

II Operational Restrictions

1. The permittee shall perform the following:
 - a. The filter media of the HEAF units shall be inspected and replaced, if needed, on a twice per shift basis.
 - b. Once each month the HEAF units shall be shut down, inspected, cleaned, and repaired as needed.
2. The permittee shall operate either one of the HEAF units when this emissions unit is in operation.

III Monitoring and/or Record keeping

1. The permittee shall collect and record the following information each day:
 - a. The date and time of each HEAF unit inspection.
 - b. The date and time that each HEAF unit was shut down and a description of any repairs made.
2. The permittee shall document whether or not a HEAF unit was used to control this emissions unit whenever the emissions unit was in operation.
3. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from 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 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 minimize or eliminate the visible emissions.

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Facility ID: 03-20-01-0003

Emissions Unit: CURING OVEN UNIT #23 (P016)

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

4. Notwithstanding the frequency of the record keeping and monitoring requirements specified in section A.III.3, the permittee may reduce the frequency of visual observations for this emissions from at least 5 days per week to weekly readings 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.1.

The permittee shall revert to 5 days per week readings if any visible emissions are observed.

IV Reporting Requirements

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record showing that a HEAF unit was not used to control this emissions unit when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit quarterly HEAF inspection deviation (excursion) reports that identify all days when the filter media was not inspected on a twice per shift basis and replaced if needed. These deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
Facility ID: 03-20-01-0003

Emissions Unit: CURING OVEN UNIT #23 (P016)

V Testing Requirements

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

a. Emission Limitation: 1.66 lbs PE/hr

Applicable Compliance Method: Compliance may be determined by multiplying the maximum process rate (as indicated in the permit application) by an emission factor derived from the results of stack testing conducted on a similar emissions unit.

If required, compliance with the PE limitation above shall be conducted in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

b. Emission Limitation -

Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance in accordance with the methods specified in OAC rule 3745-17-03 (B)(1).

VI Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

- 2. Additional Terms and Conditions**

None

II Operational Restrictions

None

III Monitoring and/or Record keeping

None

IV Reporting Requirements

None

V Testing Requirements

None

VI Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

Emissions Unit ID: CURING OVEN UNIT #24 (P017)

Activity Description: This oven cures fiberglass products.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass curing operation with high energy air filtration (HEAF) units; curing unit #24	OAC rule 3745-17-11(B)(1)	1.30 lbs particulate emissions (PE)/hr
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	exempt (See A.I.2.b.)

2. Additional Terms and Conditions

- a. PE from this emissions unit shall be vented to either one of the two HEAF units (North or South HEAF units).
- b. This emissions unit was installed prior to February 15, 1972. Therefore, there are no applicable regulations/emission limitations for organic compounds for this emissions unit.

II Operational Restrictions

1. The permittee shall perform the following:
 - a. The filter media of the HEAF units shall be inspected and replaced, if needed, on a twice per shift basis.
 - b. Once each month the HEAF units shall be shut down, inspected, cleaned, and repaired as needed.
2. The permittee shall operate either one of the HEAF units when this emissions unit is in operation.

III Monitoring and/or Record keeping

1. The permittee shall collect and record the following information each day:
 - a. The date and time of each HEAF unit inspection.
 - b. The date and time that each HEAF unit was shut down and a description of any repairs made.
2. The permittee shall document whether or not a HEAF unit was used to control this emissions unit whenever the emissions unit was in operation.
3. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from 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 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 minimize eliminate the visible emissions.

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
Facility ID: 03-20-01-0003

Emissions Unit: CURING OVEN UNIT #24 (P017)

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

4. Notwithstanding the frequency of the monitoring requirements specified in section A.III.4, the permittee may reduce the frequency of visual observations for this emissions from at least 5 days per week to weekly readings 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.1.

The permittee shall revert to 5 days per week readings if any visible emissions are observed.

IV Reporting Requirements

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record showing that a HEAF unit was not used to control this emissions unit when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit quarterly HEAF inspection deviation (excursion) reports that identify all days when the filter media was not inspected on a twice per shift basis and replaced if needed. These deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

V Testing Requirements

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

- a. Emission Limitation: 1.30 lbs PE/hr

Applicable Compliance Method: Compliance may be determined by multiplying the maximum process rate (as indicated in the permit application) by an emission factor derived from the results of stack testing conducted on a similar emissions unit.

If required, compliance with the PE limitation above shall be conducted in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

- b. Emission Limitation -

Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance in accordance with the methods specified in OAC rule 3745-17-03 (B)(1).

VI Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

- 2. Additional Terms and Conditions**

None

II Operational Restrictions

None

III Monitoring and/or Record keeping

None

IV Reporting Requirements

None

V Testing Requirements

None

VI Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

Emissions Unit ID: CURING OVEN UNIT #25 (P018)

Activity Description: This oven cures fiberglass products.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass curing operation with high energy air filtration (HEAF) units; curing unit #25	OAC rule 3745-17-11(B)(1)	1.66 lbs particulate emissions (PE)/hr
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	exempt (See A.I.2.b.)

2. Additional Terms and Conditions

- a. PE from this emissions unit shall be vented to either one of the two HEAF units (North or South HEAF units).
- b. This emissions unit was installed prior to February 15, 1972. Therefore, there are no applicable regulations/emission limitations for organic compounds for this emissions unit.

II Operational Restrictions

1. The permittee shall perform the following:
 - a. The filter media of the HEAF units shall be inspected and replaced, if needed, on a twice per shift basis.
 - b. Once each month the HEAF units shall be shut down, inspected, cleaned, and repaired as needed.
2. The permittee shall operate either one of the HEAF units when this emissions unit is in operation.

III Monitoring and/or Record keeping

1. The permittee shall collect and record the following information each day:
 - a. The date and time of each HEAF unit inspection.
 - b. The date and time that each HEAF unit was shut down and a description of any repairs made.
2. The permittee shall document whether or not a HEAF unit was used to control this emissions unit whenever the emissions unit was in operation.
3. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from 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 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 minimize or eliminate the visible emissions.

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
Facility ID: 03-20-01-0003

Emissions Unit: CURING OVEN UNIT #25 (P018)

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

4. Notwithstanding the frequency of the monitoring requirements specified in section A.III.3, the permittee may reduce the frequency of visual observations for this emissions from at least 5 days per week to weekly readings 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.1.

The permittee shall revert to 5 days per week readings if any visible emissions are observed.

IV Reporting Requirements

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record showing that a HEAF unit was not used to control this emissions unit when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit quarterly HEAF inspection deviation (excursion) reports that identify all days when the filter media was not inspected on a twice per shift basis and replaced if needed. These deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
Facility ID: 03-20-01-0003

Emissions Unit: CURING OVEN UNIT #25 (P018)

V Testing Requirements

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

a. Emission Limitation: 1.66 lbs PE/hr

Applicable Compliance Method: Compliance may be determined by multiplying the maximum process rate (as indicated in the permit application) by an emission factor derived from the results of stack testing conducted on a similar emissions unit.

If required, compliance with the PE limitation above shall be conducted in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

b. Emission Limitation -

Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance in accordance with the methods specified in OAC rule 3745-17-03 (B)(1).

VI Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Record keeping

None

IV Reporting Requirements

None

V Testing Requirements

None

VI Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

Emissions Unit ID: CURING OVEN UNIT #26 (P019)

Activity Description: This oven cures fiberglass products.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass curing operation with high energy air filtration (HEAF) units; curing unit #26	OAC rule 3745-17-11(B)(1)	1.66 lbs particulate emissions (PE)/hr
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	exempt (See A.I.2.b.)

2. Additional Terms and Conditions

- a. PE from this emissions unit shall be vented to either one of the two HEAF units (North or South HEAF units).
- b. This emissions unit was installed prior to February 15, 1972. Therefore, there are no applicable regulations/emission limitations for organic compounds for this emissions unit.

II Operational Restrictions

1. The permittee shall perform the following:
 - a. The filter media of the HEAF units shall be inspected and replaced, if needed, on a twice per shift basis.
 - b. Once each month the HEAF units shall be shut down, inspected, cleaned, and repaired as needed.
2. The permittee shall operate either one of the HEAF units when this emissions unit is in operation.

III Monitoring and/or Record keeping

1. The permittee shall collect and record the following information each day:
 - a. The date and time of each HEAF unit inspection.
 - b. The date and time that each HEAF unit was shut down and a description of any repairs made.
2. The permittee shall document whether or not a HEAF unit was used to control this emissions unit whenever the emissions unit was in operation.
3. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from 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 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 minimize or eliminate the visible emissions.

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
Facility ID: 03-20-01-0003

Emissions Unit: CURING OVEN UNIT #26 (P019)

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

4. Notwithstanding the frequency of the monitoring requirements specified in section A.III.1, the permittee may reduce the frequency of visual observations for this emissions from at least 5 days per week to weekly readings 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.1.

The permittee shall revert to 5 days per week readings if any visible emissions are observed.

IV Reporting Requirements

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record showing that a HEAF unit was not used to control this emissions unit when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit quarterly HEAF inspection deviation (excursion) reports that identify all days when the filter media was not inspected on a twice per shift basis and replaced if needed. These deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
Facility ID: 03-20-01-0003

Emissions Unit: CURING OVEN UNIT #26 (P019)

V Testing Requirements

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

a. Emission Limitation: 1.66 lbs PE/hr

Applicable Compliance Method: Compliance may be determined by multiplying the maximum process rate (as indicated in the permit application) by an emission factor derived from the results of stack testing conducted on a similar emissions unit.

If required, compliance with the PE limitation above shall be conducted in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

b. Emission Limitation -

Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance in accordance with the methods specified in OAC rule 3745-17-03 (B)(1).

VI Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Record keeping

None

IV Reporting Requirements

None

V Testing Requirements

None

VI Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

Emissions Unit ID: Fiberglass pipe Curing Oven - Line #21 (P025)

Activity Description: The oven process cures fiberglass pipe insulation

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass wool curing oven; line 21	OAC rule 3745-17-11(B)(1)	1.42 lbs of particulate emissions (PE)/hr
	OAC rule 3745-18-06(E)	exempt (See A.I.2.a.)
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	none (See A.II.1.)
	OAC rule 3745-31-05(A)(3) (PTI 03-3282)	The requirements of this rule also include compliance with the requirements of 40 CFR, Part 63 Subpart NNN and OAC rules 3745-17-11(B)(1), 3745-17-07(A), 3745-18-06(E), 3745-23-06(B) and 3745-21-07(G).
		6.2 tons PE/yr (See A.I.2.b.)
		1.52 lbs sulfur dioxide (SO ₂)/hr and 6.7 tons SO ₂ /yr

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
Facility ID: 03-20-01-0003

Emissions Unit: Fiberglass pipe Curing Oven - Line #21 (P025)

40 CFR, Part 63, Subpart NNN

OAC rule 3745-23-06(B)
OAC rule 3745-21-08(B)

1.87 lbs carbon monoxide (CO)/hr and
8.2 ton CO/yr

1.16 lbs nitrogen oxides (NO_x)/hr and 5.1
tons NO_x

2.99 lbs organic compounds (OC) and
13.10 tons OC/yr (See A.I.2.c.)

The permittee shall not discharge or
cause to be discharged into the
atmosphere in excess of 3.4 kg of
formaldehyde per megagram (6.8 lb of
formaldehyde per ton) of glass pulled
from each existing or new flame
attenuation manufacturing line that
produces pipe product wool fiberglass.

See A.I.2.d.

2. Additional Terms and Conditions

- a. The maximum process weight rate is less than 1,000 pounds/hr. Therefore, this emissions unit is exempt from the SO₂ emission limitation based on OAC rule 3745-18-06(E), pursuant to OAC rule 3745-18-06(C).
- b. PE from this emissions unit shall be vented to either one of the two HEAF units (North or South HEAF unit).
- c. For purposes of federal enforceability, all OC is considered to be VOC.
- d. 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 No.03-3282.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

II Operational Restrictions

1. The permittee shall only employ binder resins that comply with OAC rule 3745-21-07(G)(9)(c) [use of water-based, non-photochemically reactive materials].
2. The permittee shall perform the following:
 - a. The filter media of the HEAF units shall be inspected and replaced, if needed, on a twice per shift basis.
 - b. Once each month the HEAF units shall be shut down, inspected, cleaned, and repaired as needed.
3. The permittee shall operate either one of the HEAF units when this emissions unit is in operation.
4. The permittee shall operate the process modifications such that the monitored process parameter(s) is not outside the limit(s) established during the performance test as specified in 40 CFR part 63.1384(a)(10) for more than 10 percent of the total operating time in a 6-month block reporting period.
5. The permittee shall use a resin in the formulation of binder such that the free-formaldehyde content of the resin used does not exceed the free-formaldehyde range contained in the specification for the resin used during the performance test as specified in 40 CFR 63.1384(a)(9).
6. The permittee shall use a binder formulation that does not vary from the specification and operating range established and used during the performance test as specified in 40 CFR part 63.1384(a)(9). For the purposes of this standard, adding or increasing the quantity of urea and/or lignin in the binder formulation does not constitute a change in the binder formulation.

III Monitoring and/or Record keeping

1. The permittee shall collect and record the following information each day:
 - a. The date and time of each HEAF unit inspection.
 - b. The date and time that each HEAF unit was shut down and a description of any repairs made.
2. The permittee shall document whether or not a HEAF unit was used to control this emissions unit whenever the emissions unit was in operation.
3. The permittee shall collect and record the following information each month for this emissions unit:
 - a. the volatile content (including water) of each material as employed;
 - b. the liquid organic portion of said volatile content, in percent by volume as applied; and
 - c. whether or not the volatile content of each material employed is a photochemically reactive material, as applied.
4. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from 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 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.
5. Notwithstanding the frequency of the monitoring and record keeping requirements specified in section A.III.4, the permittee may reduce the frequency of visual observations for this emissions unit from at least 5 days per week to weekly readings 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.4.

The permittee shall revert to 5 days per week readings if any visible emissions are observed.

6. The permittee shall prepare a written operations, maintenance, and monitoring plan. The plan shall be submitted to the Director for review and approval as part of the application for a part 70 permit. The plan shall include the following information:
 - a. procedures for the proper operation and maintenance of process modifications used to meet the emission limits in 40 CFR part 63.1382;
 - b. procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each monitoring device according to the manufacturers's instructions; and
 - c. corrective actions to be taken when process parameters deviate from the limit(s) established during initial performance tests.
7. The permittee shall establish a correlation between formaldehyde emissions and a process parameter(s) to be monitored.
8. The permittee shall monitor the established parameter(s) according to the procedures in the operations, maintenance, and monitoring plan.
9. The permittee shall include as part of their operations, maintenance, and monitoring plan the following information:
 - a. procedures for the proper operation and maintenance of the process;
 - b. process parameter(s) to be monitored to demonstrate compliance with the applicable emission limits in 40 CFR part 63.1382. Examples of process parameters include loss on ignition (LOI), binder solids content, and binder application rate;
 - c. correlation(s) between process parameter(s) to be monitored and formaldehyde emissions;
 - d. a schedule for monitoring the process parameter(s); and
 - e. record keeping procedures, consistent with the record keeping requirements of 40 CFR

part 63.1386, to show that the process parameter value(s) established during the performance test is not exceeded.

10. The permittee shall monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation of binder.
11. The permittee shall monitor and record the formulation of each batch of binder used.
12. The permittee shall monitor and record at least once every 8 hours, the product (LOI) and product density of each bonded wool fiberglass product manufactured.
13. For all process operating parameters measured during the initial performance tests, the permittee may change the limits established during the initial performance tests if additional performance testing is conducted to verify that, at the new control device or process parameter levels, they comply with the applicable emission limits in 40 CFR part 63.1382. The owner or operator shall conduct all additional performance tests according to the procedures 40 CFR part 63, subpart A and in 40 CFR part 63.1384.
14. The permittee shall develop and implement a written plan as described in 40 CFR part 63.6(e)(3) that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process modifications and control systems used to comply with the standard. In addition to the information required in 40 CFR part 63.6(e)(3), the plan shall include:
 - a. procedures to determine and record the cause of the malfunction and the time the malfunction began and ended;
 - b. corrective actions to be taken in the event of a malfunction of a control device or process modification, including procedures for recording the actions taken to correct the malfunction or minimize emissions; and
 - c. a maintenance schedule for each control device and process modification that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.
15. The permittee shall also keep records of each event as required by 40 CFR part 63.10(b) of this part and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in 40 CFR part 63.10(e)(3)(iv).
16. As required by 40 CFR part 63.10(b), the permittee shall maintain files of all information (including all reports and notifications) required by the general provisions and this subpart:
 - a. The permittee shall retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records shall be retained at the facility. The remaining 3 years of records may be retained off site.

- b. The permittee may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche.
 - c. The permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.
17. In addition to the general records required by 40 CFR part 63.10(b)(2), the permittee shall maintain records of the following information:
- a. The formulation of each binder batch and the LOI and density for each product manufactured on a flame attenuation manufacturing line subject to the provisions of this subpart, and the free formaldehyde content of each resin shipment received and used in the binder formulation.
 - b. The process parameter level(s) flame attenuation manufacturing lines that use process modifications to comply with the emission limits, including any period when the parameter level(s) deviated from the established limit(s), the date and time of the deviation, when corrective actions were initiated, the cause of the deviation, an explanation of the corrective actions taken, and when the cause of the deviation was corrected.

IV Reporting Requirements

- 1. The permittee shall notify the Director (the Ohio PEA, Northwest District Office) in writing of any record showing that a HEAF unit was not used to control this emissions unit when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the Ohio PEA, Northwest District Office) within 30 days after the event occurs.
- 2. In accordance with paragraph A.1.c of the General Terms and Conditions, the permittee shall submit quarterly deviation reports that identify the following:
 - a. each month during which the volatile content did not consist of only water and liquid organic material, as applied;
 - b. each month during which the liquid organic portion of the said volatile content exceeded 20% by volume, and the actual liquid organic portion of the said volatile content, as applied; and
 - c. each month during which the volatile content of any material employed is a

photochemically reactive material, as applied.

Each report shall identify the cause for the deviation and the actual total quantity of OC emitted during each such month, in pounds, as well as the number of hours and days of operation.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
4. The permittee shall submit HEAF inspection deviation (excursion) reports that identify all days when the filter media was not inspected on a twice per shift basis and replaced if needed. These deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.
5. As required by 40 CFR part 63.10(e)(3)(v), the permittee shall report semiannually if measured emissions are in excess of the applicable standard or a monitored parameter deviates from the levels established during the performance test. The report shall contain the information specified in 40 CFR part 63.10(c) as well as the additional records required by the record keeping requirements of paragraph V.17 of this permit. When no deviations have occurred, the permittee shall submit a report stating that no excess emissions occurred during the reporting period.

V Testing Requirements

1. Compliance with the emissions limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation: Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation in accordance with the methods in OAC rule 3745-17-03(B)(1).

- b. Emission Limitations: 1.42 lbs PE/hr and 6.2 tons PE/yr

Applicable Compliance Method: The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of stack testing conducted in

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accordance with Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained [the annual emission limitation was developed by multiplying the hourly emission limitation by 8760, and then dividing by 2000].

- c. Emission Limitations: 1.16 lbs NO_x/hr and 5.1 tons NO_x/yr

Applicable Compliance Method: The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of stack testing conducted in accordance with Methods 1 through 4 and 7 of 40 CFR, Part 60, Appendix A

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained [the annual emission limitation was developed by multiplying the hourly emission limitation by 8760, and then dividing by 2000].

- d. Emission Limitations: 1.87 lbs CO/hr and 8.2 tons CO/yr

Applicable Compliance Method: The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of stack testing conducted in accordance with Methods 1 through 4 and 10 of 40 CFR, Part 60, Appendix A

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained [the annual emission limitation was developed by multiplying the hourly emission limitation by 8760, and then dividing by 2000].

- e. Emission Limitations: 2.99 lb OC/hr and 13.1 tons OC/yr

Applicable Compliance Method: The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained [the annual emission limitation was

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developed by multiplying the hourly emission limitation by 8760, and then dividing by 2000].

- f. Emission Limitations: 1.52 lbs SO₂/hr and 6.7 tons SO₂/yr

Applicable Compliance Method: The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing conducted in accordance with Methods 1 through 4 and 6 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained [the annual emission limitation was developed by multiplying the hourly emission limitation by 8760, and then dividing by 2000].

- g. Emission Limitation:

The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 3.4 kg of formaldehyde per megagram (6.8 lb of formaldehyde per ton) of glass pulled.

Applicable Compliance Method: The permittee shall demonstrate compliance with the allowable formaldehyde emission limitation above based upon the record keeping and monitoring requirements established in section of this permit.

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 prior to permit expiration.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for: PE, OC, CO, SO₂ and NO_x.
- c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

i. PE: Methods 1 - 5 of 40 CFR, Part 60, Appendix A (as measured by the front-half catch only);

ii. VOC/OC: Method 18, Method 25, or Method 25A, as appropriate, of 40 CFR, Part 60,

Appendix A;

iii. CO: Methods 1 - 4 and 10 of 40 CFR, Part 60, Appendix A;

iv. NOx: Methods 1 - 4 and 7 of 40 CFR, Part 60, Appendix A; and

v. SO2: Methods 1 - 4 and 6 of 40 CFR, Part 60, Appendix A.

- 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 Ohio EPA, Northwest District Office.
3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northwest District Office. 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office.

4. Unless disapproved by the Director, a permittee of a flame attenuation manufacturing line regulated by this subpart may conduct short-term experimental production runs using binder formulations or other process modifications where the process parameter values would be outside those established during performance tests without first conducting performance tests. Such runs shall not exceed 1 week in duration unless the Director approves a longer period. The permittee shall notify the Director and postmark or deliver the notification at least 15 days prior to commencement of the short-term experimental production runs. The Director shall inform the permittee of a decision to disapprove or shall request additional information prior to the date of

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the short-term experimental production runs. Notification of intent to perform an experimental short-term production run shall include the following information:

- a. the purpose of the experimental production run;
- b. the affected line;
- c. how the established process parameters will deviate from previously approved levels;
- d. the duration of the experimental production run;
- e. the date and time of the experimental production run; and
- f. a description of any emission testing to be performed during the experimental production run.

VI Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

- 2. Additional Terms and Conditions**

None

II Operational Restrictions

None

III Monitoring and/or Record keeping

None

IV Reporting Requirements

None

V Testing Requirements

None

VI Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

Emissions Unit ID: Fiberglass pipe grinding, trimming, and slitting (P026)

Activity Description: This process grinds, trims, and slits the cured pipe inculcation to proper final product specifications.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass slitting, cutting, and grinding operation with cyclone and baghouse; line 21	OAC rule 3745-31-05(A)(3) (PTI 03-3282)	1.0 lb particulate emissions (PE)/hr and 4.4 tons PE/yr See A.I.2.a.
	OAC rule 3745-17-11(B)(1)	See A.I.2.b.
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

2. Additional Terms and Conditions

- a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
- 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).

II Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 0.5 to 12 inches of water while the emissions unit is in operation.

III Monitoring and/or Record keeping

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, 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 baghouse servicing this emissions unit on a once per shift basis.

IV Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above while the emissions unit was in operation. These deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

V Testing Requirements

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

- a. Emission Limitations: 1.0 lb PE/hr, 4.4 tons PE/yr

Applicable Compliance Method: The permittee shall demonstrate compliance with the hourly PE limitation based upon the results of stack testing conducted in accordance with Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

Compliance with the annual PE limitation shall be assumed as long as compliance with the hourly PE limitation is maintained [the annual emission limitation was developed by multiplying the hourly emission limitation by 8760, and then dividing by 2000].

- b. Emission Limitation -

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Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible PE limitation in accordance with the methods in OAC rule 3745-17-03(B)(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 prior to permit expiration.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1- 5 of 40 CFR, Part 60, Appendix A (as measured by the front-half catch only).
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.
 - e. The emissions testing shall also be conducted to demonstrate compliance with the allowable emission rate across the entire pressure drop range of 0.5-12 inches of water.
3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northwest District Office. 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest District Office 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.

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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 Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office.

VI Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. **Additional Terms and Conditions**
None

II Operational Restrictions

None

III Monitoring and/or Record keeping

None

IV Reporting Requirements

None

V Testing Requirements

None

VI Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

Emissions Unit ID: Fiberglass pipe Sear Roll (P027)

Activity Description: The Sear Roll thermally set the exterior of the uncured pipe insulation before entering the curing oven.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass sear roll operation; line 21	OAC rule 3745-17-11(B)(1)	0.75 lb of particulate emissions (PE)/hr
	OAC rule 3745-18-06(E)	exempt (See A.I.2.a.)
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	none (See A.II.1.)
	OAC rule 3745-31-05(A)(3) (PTI 03-3282)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(1), 3745-17-07(A), 3745-18-06(E) and 3745-21-07(G) and 40 CFR, Part 63, Subpart NNN.
		3.3 tons PE/yr (See A.I.2.b.)
		0.15 lb sulfur dioxide (SO ₂)/hr and 0.7 ton SO ₂ /yr

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Emissions Unit: Fiberglass pipe Sear Roll (P027)

40 CFR, Part 63, Subpart NNN	0.19 lbs carbon monoxide (CO)/hr and 0.8 ton CO/yr 0.12 lbs nitrogen oxides (NO _x)/hr and 0.5 ton NO _x 0.31 lb organic compounds (OC) and 1.4 tons OC/yr (See A.I.2.c.) The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 3.4 kg of formaldehyde per megagram (6.8 lb of formaldehyde per ton) of glass pulled.
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2. Additional Terms and Conditions

- a. The maximum process weight rate is less than 1,000 pounds/hr. Therefore, this emissions unit is exempt from the SO₂ emission limitation based on OAC rule 3745-18-06(E), pursuant to OAC rule 3745-18-06(C).
- b. PE from this emissions unit shall be vented to either one of the two HEAF units (North or South HEAF unit).
- c. For purposes of federal enforceability, all OC is considered to be VOC.

II Operational Restrictions

- 1. The permittee shall only employ binder resins that comply with OAC rule 3745-21-07(G)(9)(c) [use of water-based, non-photochemically reactive materials].
- 2. The permittee shall perform the following:
 - a. The filter media of the HEAF units shall be inspected and replaced, if needed, on a twice per shift basis.
 - b. Once each month the HEAF units shall be shut down, inspected, cleaned, and repaired as needed.

3. The permittee shall operate either one of the HEAF units when this emissions unit is in operation.
4. The permittee shall operate the process modifications such that the monitored process parameter(s) is not outside the limit(s) established during the performance test as specified in 40 CFR part 63.1384(a)(10) for more than 10 percent of the total operating time in a 6-month block reporting period.
5. The permittee shall use a resin in the formulation of binder such that the free-formaldehyde content of the resin used does not exceed the free-formaldehyde range contained in the specification for the resin used during the performance test as specified in 40 CFR 63.1384(a)(9).
6. The permittee shall use a binder formulation that does not vary from the specification and operating range established and used during the performance test as specified in 40 CFR part 63.1384(a)(9). For the purposes of this standard, adding or increasing the quantity of urea and/or lignin in the binder formulation does not constitute a change in the binder formulation.

III Monitoring and/or Record keeping

1. The permittee shall collect and record the following information each day:
 - a. The date and time of each HEAF unit inspection.
 - b. The date and time that each HEAF unit was shut down and a description of any repairs made.
2. The permittee shall document whether or not a HEAF unit was used to control this emissions unit whenever the emissions unit was in operation.
3. The permittee shall collect and record the following information each month:
 - a. the volatile content (including water) of each material, as employed;
 - b. the liquid organic portion of said volatile content, in percent by volume, as applied; and
 - c. whether or not the volatile content of each material employed is a photochemically reactive material, as applied.

4. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from 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 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.

5. Notwithstanding the frequency of the monitoring and record keeping requirements specified in section A.III.4, the permittee may reduce the frequency of visual observations for this emissions from at least 5 days per week to weekly readings 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.4.

The permittee shall revert to 5 days per week readings if any visible emissions are observed.

6. The permittee shall prepare a written operations, maintenance, and monitoring plan. The plan shall be submitted to the Director for review and approval as part of the application for a part 70 permit. The plan shall include the following information:
 - a. procedures for the proper operation and maintenance of process modifications used to meet the emission limits in 40 CFR part 63.1382;
 - b. procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each monitoring device according to the manufacturers's instructions; and
 - c. corrective actions to be taken when process parameters deviate from the limit(s) established during initial performance tests.

7. The permittee shall establish a correlation between formaldehyde emissions and a process

parameter(s) to be monitored.

8. The permittee shall monitor the established parameter(s) according to the procedures in the operations, maintenance, and monitoring plan.
9. The permittee shall include as part of their operations, maintenance, and monitoring plan the following information:
 - a. procedures for the proper operation and maintenance of the process;
 - b. process parameter(s) to be monitored to demonstrate compliance with the applicable emission limits in 40 CFR part 63.1382. Examples of process parameters include loss on ignition (LOI), binder solids content, and binder application rate;
 - c. correlation(s) between process parameter(s) to be monitored and formaldehyde emissions;
 - d. a schedule for monitoring the process parameter(s); and
 - e. record keeping procedures, consistent with the record keeping requirements of 40 CFR part 63.1386, to show that the process parameter value(s) established during the performance test is not exceeded.
10. The permittee shall monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation of binder.
11. The permittee shall monitor and record the formulation of each batch of binder used.
12. The permittee shall monitor and record at least once every 8 hours, the product (LOI) and product density of each bonded wool fiberglass product manufactured.
13. For all process operating parameters measured during the initial performance tests, the permittee may change the limits established during the initial performance tests if additional performance testing is conducted to verify that, at the new control device or process parameter levels, they comply with the applicable emission limits in 40 CFR part 63.1382. The owner or operator shall conduct all additional performance tests according to the procedures 40 CFR part 63, subpart A and in 40 CFR part 63.1384.
14. The permittee shall develop and implement a written plan as described in 40 CFR part 63.6(e)(3) that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process modifications and control systems used to comply with the standard. In addition to the information required in 40 CFR part 63.6(e)(3), the plan shall include:
 - a. procedures to determine and record the cause of the malfunction and the time the malfunction began and ended;

- b. corrective actions to be taken in the event of a malfunction of a control device or process modification, including procedures for recording the actions taken to correct the malfunction or minimize emissions; and
 - c. a maintenance schedule for each control device and process modification that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.
15. The permittee shall also keep records of each event as required by 40 CFR part 63.10(b) of this part and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in 40 CFR part 63.10(e)(3)(iv).
16. As required by 40 CFR part 63.10(b), the permittee shall maintain files of all information (including all reports and notifications) required by the general provisions and this subpart:
- a. The permittee shall retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records shall be retained at the facility. The remaining 3 years of records may be retained off site.
 - b. The permittee may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche.
 - c. The permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.
17. In addition to the general records required by 40 CFR part 63.10(b)(2), the permittee shall maintain records of the following information:
- a. The formulation of each binder batch and the LOI and density for each product manufactured on a flame attenuation manufacturing line subject to the provisions of this subpart, and the free formaldehyde content of each resin shipment received and used in the binder formulation.
 - b. The process parameter level(s) flame attenuation manufacturing lines that use process modifications to comply with the emission limits, including any period when the parameter level(s) deviated from the established limit(s), the date and time of the deviation, when corrective actions were initiated, the cause of the deviation, an explanation of the corrective actions taken, and when the cause of the deviation was corrected.

IV Reporting Requirements

Facility Name: Johns Manville International, Inc. - Defiance Plant 2
Facility ID: 03-20-01-0003

Emissions Unit: Fiberglass pipe Sear Roll (P027)

1. The permittee shall notify the Director (the Ohio PEA, Northwest District Office) in writing of any record showing that a HEAF unit was not used to control this emissions unit when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the Ohio PEA, Northwest District Office) within 30 days after the event occurs.
2. In accordance with paragraph A.1.c of the General Terms and Conditions, the permittee shall submit quarterly deviation reports that identify the following:
 - a. each month during which the volatile content did not consist of only water and liquid organic material, as applied;
 - b. each month during which the liquid organic portion of the said volatile content exceeded 20% by volume, and the actual liquid organic portion of the said volatile content, as applied; and
 - c. each month during which the volatile content of any material employed is a photochemically reactive material, as applied.

Each report shall identify the cause for the deviation and the actual total quantity of OC emitted during each such month, in pounds, as well as the number of hours and days of operation.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
4. The permittee shall submit HEAF inspection deviation (excursion) reports that identify all days when the filter media was not inspected on a twice per shift basis and replaced if needed. These deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.
5. As required by 40 CFR part 63.10(e)(3)(v), the permittee shall report semiannually if measured emissions are in excess of the applicable standard or a monitored parameter deviates from the levels established during the performance test. The report shall contain the information specified in 40 CFR part 63.10(c) as well as the additional records required by the record keeping requirements of paragraph V.17 of this permit. When no deviations have occurred, the permittee shall submit a report stating that no excess emissions occurred during the reporting period.

V Testing Requirements

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

- a. Emission Limitation: Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation in accordance with the methods in OAC rule 3745-17-03(B)(1).

- b. Emission Limitations: 0.75 lbs PE/hr and 3.3 tons PE/yr

Applicable Compliance Method: The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of stack testing conducted in accordance with Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained [the annual emission limitation was developed by multiplying the hourly emission limitation by 8760, and then dividing by 2000].

- c. Emission Limitations: 0.12 lb NO_x/hr and 0.5 ton NO_x/yr

Applicable Compliance Method: The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of stack testing conducted in accordance with Methods 1 through 4 and 7 of 40 CFR, Part 60, Appendix A

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained [the annual emission limitation was developed by multiplying the hourly emission limitation by 8760, and then dividing by 2000].

- d. Emission Limitations: 0.19 lb CO/hr and 0.8 ton CO/yr

Applicable Compliance Method: The permittee shall demonstrate compliance with the

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hourly emission limitation based upon the results of stack testing conducted in accordance with Methods 1 through 4 and 10 of 40 CFR, Part 60, Appendix A

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained [the annual emission limitation was developed by multiplying the hourly emission limitation by 8760, and then dividing by 2000].

- e. Emission Limitations: 0.31 lb OC/hr and 1.4 tons OC/yr

Applicable Compliance Method: The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained [the annual emission limitation was developed by multiplying the hourly emission limitation by 8760, and then dividing by 2000].

- f. Emission Limitations: 1.52 lbs SO₂/hr and 6.7 tons SO₂/yr

Applicable Compliance Method: The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing conducted in accordance with Methods 1 through 4 and 6 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained [the annual emission limitation was developed by multiplying the hourly emission limitation by 8760, and then dividing by 2000].

- g. Emission Limitation:

The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 3.4 kg of formaldehyde per megagram (6.8 lb of formaldehyde per ton) of glass pulled.

Applicable Compliance Method: The permittee shall demonstrate compliance with the allowable formaldehyde emission limitation above based upon the record keeping and monitoring requirements established in section of this permit.

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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 prior to permit expiration.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for: PE, OC, CO, SO₂ and NO_x.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:
 - i. PE: Methods 1 - 5 of 40 CFR, Part 60, Appendix A (as measured by the front-half catch only);
 - ii. VOC/OC: Methods 18, Method 25, or Method 25A, as appropriate, of 40 CFR, Part 60, Appendix A;
 - iii. CO: Methods 1 - 4 and 10 of 40 CFR, Part 60, Appendix A;
 - iv. NO_x: Methods 1 - 4 and 7 of 40 CFR, Part 60, Appendix A; and
 - v. SO₂: Methods 1 - 4 and 6 of 40 CFR, Part 60, Appendix A.
 - 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 Ohio EPA, Northwest District Office.
3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northwest District Office. 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the

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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 Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office.

4. Unless disapproved by the Director, a permittee of a flame attenuation manufacturing line regulated by this subpart may conduct short-term experimental production runs using binder formulations or other process modifications where the process parameter values would be outside those established during performance tests without first conducting performance tests. Such runs shall not exceed 1 week in duration unless the Director approves a longer period. The permittee shall notify the Director and postmark or deliver the notification at least 15 days prior to commencement of the short-term experimental production runs. The Director shall inform the permittee of a decision to disapprove or shall request additional information prior to the date of the short-term experimental production runs. Notification of intent to perform an experimental short-term production run shall include the following information:
 - a. the purpose of the experimental production run;
 - b. the affected line;
 - c. how the established process parameters will deviate from previously approved levels;
 - d. the duration of the experimental production run;
 - e. the date and time of the experimental production run; and
 - f. a description of any emission testing to be performed during the experimental production run.

VI Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Record keeping

None

IV Reporting Requirements

None

V Testing Requirements

None

VI Miscellaneous Requirements

None