State of Ohio Environmental Protection Agency

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10/2/2009

Certified Mail
Facility ID: 0320010005
Permit Number: P0086884
County: Defiance

Mr. James Smargiassi
Johns Manville
925 Carpenter Rd
Defiance, OH 43512

RE: PRELIMINARY PROPOSED AIR POLLUTION TITLE V PERMIT
Permit Type: Renewal

Dear Permit Holder:

Enclosed is the Ohio EPA Preliminary Proposed Title V permit that was issued in draft form on 8/18/2009. The comment period for the Draft permit has ended. We are now ready to submit this permit to U.S. EPA for approval.

We are submitting this for your review and comment. If you do not agree with the Preliminary Proposed Title V permit as written, you now have the opportunity to raise your concerns. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page http://www.epa.state.oh.us/dapc in Microsoft Word and Adobe Acrobat format. Comments will be accepted as a marked-up copy of the permit or in narrative format. Any comments must be sent to the following within 14 days of your receipt of this letter:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
Columbus, Ohio 43215

and

Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402

If you believe that it is necessary to have an informal conference with us, then, as part of your written comments, you should request a conference concerning the written comments.

If comments are not submitted within 14 days of your receipt of this letter, we will forward the proposed permit to U.S. EPA for approval. All comments received will be carefully considered before proceeding with the proposed permit.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA DAPC, Northwest District Office

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

PRELIMINARY PROPOSED

Air Pollution Title V Permit
for
Johns Manville

Facility ID: 0320010005
Permit Number: P0086884
Permit Type: Renewal
Issued: 10/2/2009
Effective: To be entered upon final issuance
Expiration: To be entered upon final issuance

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Air Pollution Title V Permit
for
Johns Manville

Table of Contents

Authorization 1
A. Standard Terms and Conditions 2
1. Federally Enforceable Standard Terms and Conditions 3
2. Monitoring and Related Record Keeping and Reporting Requirements 3
3. Scheduled Maintenance 6
4. Risk Management Plans 6
5. Title IV Provisions 6
6. Severability Clause 7
7. General Requirements 7
8. Fees 8
9. Marketable Permit Programs 8
10. Reasonably Anticipated Operating Scenarios 8
11. Reopening for Cause 8
12. Federal and State Enforceability 9
13. Compliance Requirements 9
14. Permit Shield 10
15. Operational Flexibility 10
16. Emergencies 11
17. Off-Permit Changes 11
18. Compliance Method Requirements 12
19. Insignificant Activities or Emissions Levels 12
20. Permit to Install Requirement 12
21. Air Pollution Nuisance 12
22. Permanent Shutdown of an Emissions Unit 12
23. Title VI Provisions 13
24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only 13
25. Records Retention Requirements Under State Law Only 13
26. Inspections and Information Requests 13
27. Scheduled Maintenance/Malfunction Reporting 14
28. Permit Transfers 14

29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations 14

B. Facility-Wide Terms and Conditions 15

C. Emissions Unit Terms and Conditions 20

1. P005, Blowing Wool Manufacturing 21
2. P008, Unit 88 - Forming and Collection 27
3. P012, Unit 82 - Forming and Collection 31
4. P015, Unit 86 - Forming and Collection 35
5. P029, Unit 86 - Curing Oven 42
6. P047, Unit 89 - Hot End 49
7. P051, Unit 89 - Curing Oven 59
8. P052, Unit 89 - Cooling Table 72
9. P060, Batch Receiving 83
10. P082, Unit 807 - Forming and Collection 86
11. P083, Unit 807 - Curing Oven and Sear Roll 95
12. P084, Unit 807 - Finishing 106
13. P085, Offline Curing Unit 112
14. P086, Offline Finishing 122
15. P092, Unit 87 – forming and collection 125
16. P093, Unit 87 - Curing Oven 131
17. P301, Unit 21 - Forming and Collection 138
18. P308, Unit 23 - Forming and Collection 145
19. P309, Unit 24 - Forming and Collection 154
20. P317, Unit 24 –Fiberglass Curing Oven 163
21. P325, Unit 21 - Fiberglass Pipe Curing Oven 166
22. P326, Line 21 - Fiberglass Pipe Grinding, Trimming, & Slitting 177
23. P327, Line 21 Fiberglass Pipe Sear Roll 181
24. P801, Process Water Treatment Pond 192
25. Emissions Unit Group - Electric Melters PTI 03-16294: P061, P062, P063, ... 194
26. Emissions Unit Group - Forming & Collection (No PTI): P001, P310 , P013 204
27. Emissions Unit Group – Unit 89 Collection Modules A,B,C PTI 03-10931: P048, P049, P050 207
28. Emissions Unit Group - Glass Melting Furnaces #201&203: P303, P307, ... 220
29. Emissions Unit Group - Pipe Collection A PTI 03-16294: P064, P067, P070, P073, ... 228
30. Emissions Unit Group - Pipe Collection B PTI 03-16294: P076, P079, ... 237
31. Emissions Unit Group - Product Finishing A PTI 03-16294: P066, P069, P072, P075, ... 246
32. Emissions Unit Group - Product Finishing B 03-16294: P078, P081, ... 252
33. Emissions Unit Group - Sear Roll/Curing A PTI 03-16294: P065, P068, P071, P074, ... 258

34. Emissions Unit Group - Sear Roll/Curing B PTI 03-16294: P077, P080, ... 269
35. Emissions Unit Group - Unit 89 Cullet Silos: P054, P055, ... 280
36. Emissions Unit Group - Curing Ovens #23 & 25 (Plant 2): P316, P318, ... 285
37. Emissions Unit Group - Curing Ovens #81 and #82: P043, P044, ... 288

Authorization

Facility ID: 0320010005
Facility Description: Fiberglass manufacturing
Application Number(s): A0017751, A0017752, A0017753, A0017754, A0035634, A0037774, A0038079
Permit Number: P0086884
Permit Description: Renewal of Title V operating permit
Permit Type: Renewal
Issue Date: 10/2/2009
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Superseded Permit Number: P0086883

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

Johns Manville
925 Carpenter Road
Defiance, OH 43512

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

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

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. 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. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Ohio EPA DAPC, Northwest District Office. 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, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months (540 days) and no later than 6 months (180 days) prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions

(2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions

(3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting

(4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
(Authority for term: ORC 3704.036(A))

2. 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 C. Emissions Unit Terms and Conditions of this Title V permit), the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

(1) The date, place (as defined in the permit), and time of sampling or measurements.

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) 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:

(1) 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 (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) 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))

(2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions 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 (i.e., postmarked) 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 deviation reports shall satisfy the requirements 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. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

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 satisfies the reporting requirements specified in this Standard 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 (for the deviations so reported) the requirements 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 Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

(3) 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 Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted (i.e., postmarked) 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. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

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 and 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 Standard Term and Condition A.2.c)(2) 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) and OAC rule 3745-77-07(A)(13)(b))

(4) 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))

(5) Reports of any required monitoring and/or record keeping information shall be submitted to Ohio EPA DAPC, Northwest District Office.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. 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 Standard Term and Condition A.2.c)(1) above.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

4. 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))

5. 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))

6. 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))

7. 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 Standard Term and Condition A.11 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.

f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:

(1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or

(2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or

(3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminent sources once this permit ceases to be enforceable. The permittee

shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.
(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. 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))

9. 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))

10. 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 standard terms and conditions shall apply to all operating scenarios authorized in this permit.
(Authority for term: OAC rule 3745-77-07(A)(10))

11. 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))

12. 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))

13. 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:

(1) 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.

(2) 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.

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

(4) 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:

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

(2) 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:

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

(2) 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.

(3) 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))

14. 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))

15. 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))

16. 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))

17. Off-Permit Changes

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

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

b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

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

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

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

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

18. 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.)

19. Insignificant Activities or Emissions Levels

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

20. 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))

21. 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))

22. 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 from the responsible official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

After the date on which 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 Title V permit 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.
(Authority for term: OAC rule 3745-77-01)

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.

b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.

c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only

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 (i.e., postmarked) quarterly, 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.)

25. Records Retention Requirements Under State Law Only

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.

26. 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.
(Authority for term: OAC rule 3745-77-07(C))

27. 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).

28. 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.
(Authority for term: OAC rule 3745-77-01(C))

29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

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 (i.e., postmarked) 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 Standard Term and Condition A.2.c)(2); or

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; or

c) where the company's responsible official has certified that an emissions unit has been permanently shut down.

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

   a) None.

2. The following insignificant emissions units at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. The insignificant emissions units listed below are subject to one or more applicable requirements contained in a permit to install or in the SIP-approved versions of OAC Chapters 3745-17, 3745-18, 3745-21 and 3745-31:

   P098 – Unit 89 web coating (40 CFR Part 63 Subpart JJJJ).

   [Authority for term: OAC rule 3745-77-07(A)(13)]

3. 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:

EU ID	Operations, Property and/or Equipment Description
B003	Process water heater – Boiler (fire protection)
B004	Process water heater – Boiler (west binder room)
B006	Air make up unit #5 - 11.5 mmBtu/hr (Dravo)
B007	Air make up unit #8 – 11.5 mmBtu/hr (Rheem)
P033	Electrically heated quality control test press. – QC test press
P034	Electrically heated quality control test press. – Unit 84 QC test press
P036	Binder mix tanks – east binder room – north and south P/M pre-react tanks
P097	Pipe Emergency Generator
P098	Unit 89 Coating Application
P099	Resin storage tanks.
P100	Cooling hood just past the Unit 81 Curing Oven.
P101	Cooling hood just past the Unit 82 Curing Oven.
P102	Unit 86 Cooling, slitting, and chopping.
P103	LOI test ovens.
P104	Binder mix tanks. Unit 89 – north (T1400) and south (T1401) Pre-react tanks
P105	Sodium hydroxide storage tank.
P106	Ammonia storage tank.
P108	Cold cleaner.
P109	Resin storage tanks.
P116	Pipe Process area heaters
P117	Pipe Ammonia Tank
P118	Urea Tank T400
P119	Mulrex Oil Tank T100
P120	East Binder Room Prereact Tanks
P121	Unit 89 Mulrex Oil Tank
P122	Unit 89 Urea Tank
P123	Unit 89 Ammonium Sulfate Tank
P124	Pipe T95 Resin Tanks

EU ID	Operations, Property and/or Equipment Description
P125	Plant 8 Safety Kleen Stations
P330	Urea mix hopper.
P331	LOI test ovens.
P332	Natural gas space heaters.
P333	Cold cleaners.
P334	Glass raw material storage silo #1
P335	Glass raw material storage silo #2
P336	Glass raw material storage silo #3
P337	Glass raw material storage silo #4
P338	Glass raw material storage silo #5
P339	Glass raw material storage silo #6
P340	Glass raw material storage silo #7
P341	Glass raw material storage silo #9
P342	Glass raw material storage silo #10
P343	Glass raw material storage silo #11
P344	Railcar unloading and material handling.
P345	Raw material mixing and weighing.
P346	Glass raw material storage silo #12
P347	Plant 2 Prereact Tanks
P348	Unit 21 Prereact Tanks
P349	T53 Resin Tanks
P350	Plant 2 Caustic Tank
P351	Plant 2 Melamine Mix Tank
P352	Plant 2 Mulrex Oil Tank
P353	Black Dye Tank
P354	Plant 2 Silane Tank
P355	Plant 2 Ammonium Sulfate Tanks
P356	Plant 2 Urea Tanks
P901	Air make up unit #1 (9.0 mmBtu/hr Aerovent)
P902	Air make up unit #2 (9.0 mmBtu/hr Aerovent)
P903	Air make up unit #3 (9.0 mmBtu/hr Aerovent)
P904	Air make up unit #4 (4.875 mmBtu/hr Aerovent)
P906	Air make up unit #6 (2.8 mmBtu/hr Aerovent)
P907	Air make up unit #7 (4.875 mmBtu/hr Aerovent)
P909	Air make up unit #9 (7.425 mmBtu/hr Dravo)
P910	Air make up unit #10 (5.0 mmBtu/hr Dravo)
P911	Air make up unit #11 (9.75 mmBtu/hr Aerovent)
P912	Air make up unit #12 (10.0 mmBtu/hr Aerovent)
P913	Air make up unit #13 (1.5 mmBtu/hr Aerovent)

4. Pursuant to 40 CFR Part 64, the permittee has submitted, and the Ohio EPA has approved a compliance assurance monitoring plan for emissions units P005, P066, P069, P072, P075, P078, P081 and P084 at this facility. The permittee shall comply with the provisions of the plan during any operation of the aforementioned emissions units.

   [Authority for term: 40 CFR, Part 64]

5. The following emissions units contained in this permit are subject to 40 CFR, Part 63, Subpart NNN: P047, P048, P049, P050, P051, P052, P061, P062, P063, P064, P065, P067, P068, P070, P071, P073, P074, P076, P077, P079, P080, P082, P083, P301, P325 and P327. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

   [Authority for term: 40 CFR, Part 63, Subpart NNN]

6. The following emissions units contained in this permit are subject to 40 CFR, Part 63, Subpart JJJJ: P098. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

   [Authority for term: 40 CFR, Part 63, Subpart JJJJ]

7. The following emissions units contained in this permit are subject to 40 CFR, Part 60, Subpart PPP: P048, P049, P050 and P052. The complete NSPS requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

   [Authority for term: 40 CFR, Part 60, Subpart PPP]

8. 40 CFR Part 63 Subpart JJJJ requirements [40 CFR 63.3280-3420]

   a) In accordance with 40 CFR 63.3300 emissions unit P098 is a web coating line engaged in the coating ofa web substrate.

   b) 40 CFR Part 63.1-15 - Table 2 of Subpart JJJJ of 40 CFR Part 63 – Applicability of General Provisions to Subpart JJJJ shows which parts of the general provisions in 40 CFR 63.1-15 apply.

   c) Organic HAP emissions shall not exceed 4% of the mass coating materials applied for the month.

   d) The permittee shall employ as-purchased “compliant” coating materials in this emissions unit and shall be applied as-purchased.

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

      (1) Organic HAP content data for each coating employed, for the purpose of demonstrating compliance in accordance with the requirements of 40 CFR 63.3360(c).

      (2)

   f) The permittee shall submit semiannual written reports that identify any month during which a non-compliant coating was employed. If there are no deviations from the emissions limitation, a statement that there were no deviations from the emissions limitations must be submitted. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

g) The permittee shall use formulation data to determine the organic HAP mass fraction of a coating material. Formulation data may be provided to the permittee by the manufacturer of the material. In the event of an inconsistency between Method 311 (Appendix A of 40 CFR part 63) test data and a facility's formulation data, and the Method 311 test value is higher, the Method 311 data will govern. Formulation data may be used provided that the information represents all organic HAP present at a level equal to or greater than 0.1 percent for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and equal to or greater than 1.0 percent for other organic HAP compounds in any raw material used.

[Authority for terms: 40 CFR Part 63 Subpart JJJJ]

C. Emissions Unit Terms and Conditions

1. P005, Blowing Wool Manufacturing

Operations, Property and/or Equipment Description:

Fiberglass shredder and hammermill with a baghouse.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-11(B)(1)	Particulate matter emissions (PE) shall not exceed 6.08 pounds per hour (lbs/hr).
b.	OAC rule 3745-17-07(A)	Visible PE from the stack(s) servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
c.	40 CFR Part 64 – Compliance Assurance Monitoring (CAM)	See c)(1) and d)(1) through d)(7).

(2) Additional Terms and Conditions

a. This emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitations(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.5 to 8.0 inches of water.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR 64.3(a)(2)]

(2) At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR 64.7(b)]

(3) After approval of monitoring under this part, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 or 71 permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR 64.7(e)]

(4) The CAM plan for this emissions unit has been developed for particulates. The CAM performance indicator for the baghouse controlling this emissions unit is pressure drop in inches of water which is based upon manufacturer's recommendations. When the pressure drop of the baghouse is operating outside the indicator range, the permittee shall take corrective action to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions and comply with the reporting requirements specified in e)(1). The emissions unit and control equipment shall be run in accordance with the approved CAM Plan, or any approved revision of the Plan. The baghouse operating parameter will be re-verified through periodic emission testing, or if the baghouse or emissions units operating conditions change. In addition to periodic monitoring of the baghouse operating parameter, the permittee also has an inspection and maintenance program for the baghouse. Based on the results of the monitoring and inspection program, repairs to the baghouse shall be made as needed. If the current CAM indicators and/or the baghouse inspection program is considered inadequate, the permittee will develop a Quality Improvement Plan.

[Authority for term: OAC rule 3745-77-07(A)(3)(a); OAC rule 3745-77-07(A)(3)(b); 40 CFR Part 64.3(a); 40 CFR Part 64.6(c); 40 CFR Part 64.7(d); 40 CFR Part 64.8]

(5) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on once-per-shift basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 64.3(a); 40 CFR Part 64.9(b)]

(6) Baghouse operating parameters shall be re-verified as a result of any changes to the operating conditions of the baghouse or emissions unit. In addition to periodic monitoring of the baghouse operating parameters, the permittee also has an inspection and maintenance program for the baghouse, including but not limited to:

a. checking the bags / filters for deterioration or degradation;

b. checking the cleaning system for proper operation; and

c. checking the hoppers and conveyance systems for proper operation.

Based on the results of the monitoring and inspection program, repairs to the baghouse shall be made as needed. If the current CAM indicators and/or the baghouse inspection program is considered inadequate, the permittee shall develop a Quality Improvement Plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR 64.7(e)]

(7) The permittee shall maintain a supply of replacement parts necessary to ensure ongoing proper operation of the baghouse system, including, but not limited to:

a. filter bags;

b. timing boards and solenoid coils (for blow down function);

c. diaphragms and diaphragm seal kits;

d. spare set of belts; and

e. spare bearings for blower motor.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit(s):

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in “a” (above) where a prompt investigation was not conducted;

d. each incident of deviation described in “a” where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in “a” where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-15-03(B)(1)(a); OAC rule 3745-15-03(C); OAC rule 3745-77-07(C)(1); 40 CFR Part 64.9(a)].

f) 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 at least 6 months prior to expiration of the permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for PE, in the appropriate averaging period(s)

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

i. for particulates, Methods 1 - 5 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

In order to determine the uncontrolled mass rate of PE from the emissions unit, for purposes of applying Figure II of OAC rule 3745-17-11, Methods 1- 5 of 40 CFR Part 60, Appendix A shall be conducted at the inlet of the control device.

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 appropriate Ohio EPA District Office or local air agency.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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).

f. Personnel from the appropriate Ohio EPA District Office or local air agency 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.

g. 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 appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency.

(2) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:

PE shall not exceed 6.08 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly allowable limitation shall be determined based on the results of emission testing as required in f)(1).

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(10)]

b. 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 with the visible PE limitation in accordance with the methods in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(1)]

g) Miscellaneous Requirements

(1) None.

2. P008, Unit 88 - Forming and Collection

Operations, Property and/or Equipment Description:

Melts glass using natural gas to make glass fibers.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-11(B)(1)	See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate matter emissions (PE) from the stack(s) servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
c.	OAC rule 3745-21-07(G)	See b)(2)b. and c)(1).

(2) Additional Terms and Conditions

a. PE from these emissions units shall be less than 10 pounds per hour (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 accept the PE limitation stated above (less than 10 lbs/hr).

b. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[c)(1), d)(3) and e)(2)]

c) Operational Restrictions

(1) The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01(C)(5), is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(G)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform checks at least five (5) days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the 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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) Notwithstanding the frequency of reporting requirements specified in d)(1), the permittee may reduce the frequency of visual observations from at least five (5) days per week to weekly readings for this emissions unit 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 d)(1).

c. The permittee shall revert to readings of five (5) days per week if any abnormal visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(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 in this emissions unit; and

b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive dust emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous six-month periods.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a photochemically reactive material was employed. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitation:</u>

PE shall be less than 10.0 lbs/hr

<u>Applicable Compliance Method:</u>

If required, compliance shall be based on the results of stack testing conducted pursuant to the methods in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(10)]

b. <u>Emission Limitation:</u>

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 with the visible PE limitation in accordance with the methods in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(1)]

g) Miscellaneous Requirements

(1) None.

3. P012, Unit 82 - Forming and Collection

Operations, Property and/or Equipment Description:

Melts glass using natural gas to make glass fibers.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) [PTI 03-08472, issued March 15, 1995 and administratively modified December 6, 2001]	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and OAC rule 3745-21-07(G). Particulate emissions (PE) shall not exceed 8.10 pounds per hour (lbs/hr). See b)(2)a.
b.	OAC rule 3745-17-07 (A)	Visible PE from the stack(s) servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
c.	OAC rule 3745-21-07 (G)(2)	None [See b)(2)b. and b)(2)c.].
d.	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).
e.	OAC rule 3745-18-06(E)	See b)(2)d.

(2) Additional Terms and Conditions

a. The PE limitation for this emissions unit was established in PTI #03-08472 as a special condition to avoid PSD review due to the increased PE resulting from the installation of a new fiberglass forming line at the facility.

b. This emissions unit is located in Defiance County (which is not a “Priority I” county as indicated in paragraph (A) of OAC rule 3745-21-06) and is not a “new

source." Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).

c. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 provisions still exists as part of the federally-approved SIP for Ohio.

d. This emissions unit is exempt from the requirements of OAC rule 3745-18-06(E) pursuant to OAC rule 3745-18-06(C) because the process weight rate (natural gas) is less than 1,000 pounds per hour.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform checks at least five (5) days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the 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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) Notwithstanding the frequency of reporting requirements specified in d)(1), the permittee may reduce the frequency of visual observations from at least five (5) days per week to weekly readings for this emissions unit 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 d)(1).

c. The permittee shall revert to readings of five (5) days per week if any abnormal visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) 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, (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous six-month periods.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitations:</u>

PE shall not exceed 8.10 lbs/hr.

<u>Applicable Compliance Method:</u>

If required, compliance with the hourly allowable PE limitation above shall be based on the results of stack testing conducted in accordance with Methods 1-5, 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. <u>Emission Limitation:</u>

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

<u>Applicable Compliance Method:</u>

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

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(1)]

g) Miscellaneous Requirements

(1) None.

4. P015, Unit 86 - Forming and Collection

Operations, Property and/or Equipment Description:

Melts glass using natural gas to make glass fibers.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) [PTI 03-17015, issued January 10, 2006]	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). Particulate matter of 10 microns or less (PM10) shall not exceed 9.28 pounds per hour (lbs/hr) and 40.65 tons per year (tpy). Carbon monoxide (CO) emissions shall not exceed 9.64 lbs/hr and 42.22 tpy. Organic compound (OC) emissions shall not exceed 5.63 lbs/hr and 24.66 tpy. [See b)(2)e.] Nitrogen oxide (NOx) emissions shall not exceed 1.57 lbs/hr and 6.88 tpy. Sulfur dioxide (SO2) emissions shall not exceed 0.09 lb/hr and 0.39 tpy. Formaldehyde emissions shall not exceed 1.42 lbs/hr and 6.22 tpy. See b)(2)a.
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.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	40 CFR Part 63, Subpart NNN	See b)(2)d.
d.	OAC rule 3745-21-07 (G)(2)	None [See b)(2)f. and c(1)].
e.	OAC rule 3745-17-11(B)	See b)(2)b.
f.	OAC rule 3745-21-08(B)	See b)(2)c.
g.	OAC rule 3745-18-06(E)	See b)(2)b.

(2) Additional Terms and Conditions

a. All particulate matter emissions are PM_{10}.

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).

c. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

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.

d. 40 CFR Part 63 Subpart NNN is not applicable to existing flame attenuation lines producing bonded heavy-density product. For the purpose of 40 CFR 63 Subpart NNN, this modified emissions unit is still considered an existing emissions unit. (The modifications performed do not constitute reconstruction as defined in 40 CFR 63.2)

e. All OC are volatile organic compounds (VOC).

f. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[c)(1), d)(3) and e)(2)]

c) Operational Restrictions

(1) The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01, is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); PTI 03-17015]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform checks at least five (5) days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the 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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

(2) Notwithstanding the frequency of reporting requirements specified in d)(1), the permittee may reduce the frequency of visual observations from at least five (5) days per week to weekly readings for this emissions unit 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 d)(1).

c. The permittee shall revert to readings of five (5) days per week if any abnormal visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-17015]

(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 in this emissions unit; and

b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a photochemically reactive material was employed. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitations:</u>

PM_{10} emissions shall not exceed 9.28 lbs/hr and 40.65 tpy.

<u>Applicable Compliance Method:</u>

The hourly allowable PM_{10} limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

b. <u>Emission Limitations:</u>

CO emissions shall not exceed 9.64 lbs/hr and 42.22 tpy.

Applicable Compliance Method:

The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

c. Emission Limitations:

OC emissions shall not exceed 5.63 lbs/hr and 24.66 tpy.

Applicable Compliance Method:

The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Method 1-4, and 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

d. Emission Limitations:

NOx emissions shall not exceed 1.57 lbs/hr and 6.88 tpy.

Applicable Compliance Method:

The hourly allowable NOx emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 7 of 40 CFR Part 60, Appendix A.

Compliance with the annual limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

e. Emission Limitations:

SO2 emissions shall not exceed 0.09 lb/hr and 0.39 tpy.

Applicable Compliance Method:

The hourly allowable SO2 emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

f. Emission Limitations:

Formaldehyde emissions shall not exceed 1.42 lbs/hr and 6.22 tpy.

Applicable Compliance Method:

The hourly allowable formaldehyde emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 316 or 318 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

g. Emission Limitation:

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

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(1)]

g) Miscellaneous Requirements

(1) None.

5. P029, Unit 86 - Curing Oven

Operations, Property and/or Equipment Description:

Fiber glass curing oven.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 03-17015, issued January 10, 2006)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A). Particulate matter of 10 microns or less (PM10) shall not exceed 1.07 pounds per hour (lbs/hr) and 4.69 tons per year (tpy). Organic compound (OC) emissions shall not exceed 2.47 lbs/hr and 10.82 tpy [See b)(2)b.]. Carbon monoxide (CO) emissions shall not exceed 3.27 lbs /hr and 14.32 tpy. Sulfur dioxide (SO2) emissions shall not exceed 0.07 lbs/hr and 0.31 tpy. Nitrogen oxide (NOx) emissions shall not exceed 0.57 lb/hr and 2.50 tpy. Formaldehyde emissions shall not exceed 0.62 lb/hr and 2.72 tpy. See b)(2)a.
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.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	40 CFR Part 63 Subpart NNN	See b)(2)e.
d.	OAC rule 3745-21-07(G)(1)	See b)(2)f.
e.	OAC rule 3745-17-11(B)	See b)(2)c.
f.	OAC rule 3745-21-08(B)	See b)(2)d.
g.	OAC rule 3745-18-06(E)	See b)(2)c.
h.	OAC rule 3745-21-07(M)(4)	Exempt pursuant to OAC rule 3745-21-07(M)(5)(d)(ii).

(2) Additional Terms and Conditions

a. All particulate matter emissions are PM_{10}.

b. All OC are volatile organic compounds (VOC).

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

d. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

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.

e. 40 CFR Part 63 Subpart NNN is not applicable to existing flame attenuation lines producing bonded heavy-density product. For the purpose of 40 CFR 63 Subpart NNN, this modified emissions unit is still considered an existing emissions unit. (The modifications performed do not constitute reconstruction as defined in 40 CFR 63.2)

f. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[c)(1), d)(1) and e)(1)]

The emission limitations and control requirements from the amended 21-07 rule, and the associated operational restrictions and the monitoring, record keeping,

and reporting requirements contained in this permit, shall become federally enforceable on the date the U.S. EPA approves the revised OAC rule 3745-21-07 as a revision to the Ohio State Implementation Plan. The following terms shall become federally enforceable after U.S. EPA approves the rule revision:

[c)(2), d)(2) and e)(2)]

c) Operational Restrictions

(1) The permittee shall not employ any material in this emissions unit that does not comply with the following:

a. The volatile content of each material employed shall consist of only water and liquid organic material;

b. The liquid organic material shall comprise no more than 20% (by volume) of the volatile content; and

c. The volatile content of each material shall not be a photo-chemically reactive material.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(G); PTI 03-17015]

(2) The use of any liquid organic material or substance containing liquid organic material with a volatile content greater than twenty percent, by volume, is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(M)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each month for this emissions unit:

a. The composition of the volatile content of each material employed;

b. The liquid organic portion of the volatile content, in % by volume, of each material employed; and

c. Documentation on whether or not the volatile content of each material employed is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

(2) The permittee shall collect and record the following information each month for this emissions unit:

a. The composition of the volatile content of each material employed; and

b. The liquid organic portion of the volatile content, in % by volume, of each material employed.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(M)]

(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.

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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

(4) Notwithstanding the frequency of reporting requirements specified in d)(3), 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 d)(2).

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

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a non-complying material [as specified in c)(1)] was employed. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a non-complying material [as specified in c)(2)] was employed. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(M)]

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

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:

PM10 emissions shall not exceed 1.07 lbs/hr and 4.69 TPY

Applicable Compliance Method:

The hourly allowable PM_{10} limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

b. Emission Limitations:

OC shall not exceed 2.47 lbs/hr and 10.82 TPY.

Applicable Compliance Method:

The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in

accordance with Method 1-4, and 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

c. Emission Limitations:

CO shall not exceed 3.27 lbs/hr and 14.32 tpy.

Applicable Compliance Method:

The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

d. Emission Limitations:

SO2 emissions shall not exceed 0.07 lb/hr and 0.31 tpy.

Applicable Compliance Method:

The hourly allowable SO2 emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

e. Emission Limitations:

NOx emissions shall not exceed 0.57 lb/hr and 2.50 tpy.

Applicable Compliance Method:

The hourly allowable NOx emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

f. Emission Limitations:

Formaldehyde emissions shall not exceed 0.62 lb/hr and 2.72 tpy.

Applicable Compliance Method:

The hourly allowable formaldehyde emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 316 or 318 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

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

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

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(1)]

g) Miscellaneous Requirements

(1) None.

6. P047, Unit 89 - Hot End

Operations, Property and/or Equipment Description:

This process operates by melting glass using natural gas to make glass fibers.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI #03-10931, issued December 6, 2001)	Particulate emissions (PE) shall not exceed 66.80 tons per rolling, 365-day period. [See b)(2)a.]
b.	OAC rule 3745-31-05(A)(3) (PTI #03-10931, issued December 6, 2001)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D). See b)(2)b. PE shall not exceed 1.00 pound per hour (lb/hr) and 4.38 tons per year (tpy). [See b)(2)c.] Visible PE from the stacks servicing this emissions unit shall not exceed 0% opacity.
c.	OAC rule 3745-17-11(B)	See b)(2)d.
d.	OAC rule 3745-17-07(A)	See b)(2)d.
e.	40 CFR Part 63, Subpart NNN [40 CFR 63.1380 – 1399] In accordance with 40 CFR 63.1380(b)(1), this emissions unit is an existing glass melting furnace located at a wool fiberglass manufacturing facility.]	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 0.25 kg of particulate matter (PM) (0.5 lb of PM per ton) of glass pulled for each existing glass-melting furnace.
f.	40 CFR 63.1 – 15 [40 CFR 63.1380(d)]	Table 1 of Subpart NNN of 40 CFR Part 63 – Applicability of General Provisions to Subpart NNN shows which parts of the

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		general provisions in 40 CFR 63.1 -15 apply.

(2) Additional Terms and Conditions

a. The permittee has requested a federal enforceable restriction of 66.80 tons PE per rolling, 365-day period for purposes of avoiding PSD.

The combined annual PE from Line 89, which includes emissions units P047, P048, P049, P050, P051, P052, P054 and P055, shall not exceed 66.80 tons, based upon a rolling, 365-day summation of the monthly PE rates.

b. The “Best Available Technology" (BAT) requirement for this emissions unit has been determined to be the use of three baghouse dust collectors, operated in parallel to provide full time control of PE during individual baghouse cleaning cycles.

c. All PE is assumed to be in the form of PM10.

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

c) Operational Restrictions

(1) The permittee must 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(2) The permittee must 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(3) The permittee must initiate corrective action within 1 hour when the average glass pull rate of any 4-hour block period for glass melting furnaces equipped with continuous glass pull rate monitors, or daily glass pull rate for glass melting furnaces not so equipped, exceeds the average glass pull rate established during the performance test as specified in 40 CFR part 63.1384(a)(3), by greater than 20 percent and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(4) The permittee must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the glass pull rate exceeds, by

more than 20 percent, the average glass pull rate established during the performance test as specified in 40 CFR part 63.1384(a)(3) for more than 5 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(5) The permittee must 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(a)(3) for more than 10 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse(s) is between 0.5 to 10 inches of water.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 03-10931]

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse(s) when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on once per shift basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

(3) The permittee shall maintain the following daily records for this emissions unit:

a. the company identification for each product group manufactured;

b. the numbers of hours of production for each product group manufactured;

c. the calculated PE factor (lbs PE/hour of production), based upon the emission factor curve*, for each product group manufactured; and

d. the total PE rate (lbs/day) for all the product groups manufactured [summation of (c x b) for all product groups].

* The permittee calculates the hourly PE by employing a pac factor. The pac factor is the design density of each product produced multiplied by the design thickness of the same product. This resultant value is used to determine the PE rate (lbs/hr) from the emission factor curve. The emission factor curve is a second degree polynomial and was derived from multiple stack tests conducted for this emissions unit. The hourly PE calculated from the polynomial is then multiplied by the number of hours of production of the product for which the pac factor was calculated.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-10931]

(4) The permittee shall calculate and maintain daily records of the particulate emissions and the rolling 365-day emissions of particulates, in tons, for emissions units P047, P048, P049, P048, P049, P050, P051, P052, P054 and P055, combined.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-10931]

(5) The permittee shall install, calibrate, maintain, and continuously operate a bag leak detection system as follows.

a. The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grain per actual cubic foot) or less.

b. The bag leak detection system sensor must produce output of relative particulate emissions.

c. The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate emissions over a preset level is detected and the alarm must 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 must be installed in each baghouse compartment or cell. If a negative pressure or induced air baghouse is used, the bag leak detection system must 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 monitoring recordkeeping and reporting requirement 3(a) or 40 CFR part 63.1383(a). 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(6) The operations, maintenance, and monitoring plan required by monitoring, record keeping, and reporting requirement of 40 CFR, Part 63.1383(a) must specify corrective actions to be followed in the event of a bag leak detection system alarm. Example of corrective actions that may be included in the plan include the following:

a. Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other conditions that may cause an increase in emissions.

b. Sealing off defective bags or filter media.

c. Replacing defective bags or filter media, or otherwise repairing the control device.

d. Sealing off a defective baghouse compartment.

e. Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.

f. Shutting down the process producing the particulate emissions.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(7) The permittee of an existing glass-melting furnace equipped with continuous glass pull rate monitors must monitor and record the glass pull rate on an hourly basis.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(8) 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(9) The permittee shall 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).

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(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 must 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 must 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(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. 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;

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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. all exceedances of the rolling, 365-day PE limitation of 68.8 tons (for emissions units P047, P048, P049, P050, P051, P052, P054 and P055, combined);

b. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

c. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

d. each incident of deviation described in “b” (above) where a prompt investigation was not conducted;

e. each incident of deviation described in "b" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

f. each incident of deviation described in "b" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-10931]

(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 40 CFR part 63.1386(d). When no deviations have occurred, the permittee shall submit a report stating that no excess emissions occurred during the reporting period.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitation:</u>

PM shall not exceed 0.5 lb per ton of glass pulled.

<u>Applicable Compliance Method:</u>

Compliance shall be demonstrated based upon the monitoring requirements specified in the operation, maintenance and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

b. <u>Emission Limitation:</u>

66.80 tons PE per rolling, 365-day period (for emissions units P047, P048, P049, P050, P051, P052, P054 and P055, combined)

<u>Applicable Compliance Method:</u>

Compliance with the rolling, 365-day PE limitation shall be demonstrated by the record keeping requirements specified in d) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

c. Emission Limitations:

1.00 lb PE/hr and 4.38 tons/yr

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit.

If required, the permittee shall demonstrate compliance with the hourly PE limitation by testing in accordance with Methods 1- 5, of 40 CFR, Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lbs/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

d. Emission Limitation:

Visible PE shall not exceed 0% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible PE limitation in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

(2) Unless disapproved by the Director, the permittee of a rotary spin 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 must not exceed 1 week in duration unless the Director approves a longer period. The permittee must 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 must inform the permittee of a decision to disapprove or must 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

g) Miscellaneous Requirements

(1) For all control device and 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 permittee shall conduct all additional performance tests according to the procedures 40 CFR part 63, subpart A and in 40 CFR part 63.1384.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) The written operations, maintenance and monitoring plan required by 40 CFR 63.1383(a) has been submitted and approved by the Administrator. This plan shall be updated if the control device and/or process operating parameters measured during the initial performance are modified in accordance with g)(1) above.

[Authority for term: OAC rule 3745-77-07(C)(1)]

7. P051, Unit 89 - Curing Oven

Operations, Property and/or Equipment Description:

Fiber glass curing oven.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI #03-10931, issued December 6, 2001)	Particulate emissions (PE) shall not exceed 66.80 tons per rolling, 365-day period. [See b)(2)a.]
b.	OAC rule 3745-31-05(A)(3) (PTI #03-10931, issued December 6, 2001)	The requirements of this rule also include compliance with the requirements of 40 CFR, Part 60 Subpart PPP, 40 CFR, Part 63 Subpart NNN, OAC rule 3745-31-05(D), OAC rule 3745-21-07(G), OAC rule 3745-17-07(A) and OAC rule 3745-21-08(B). See b)(2)b. PE shall not exceed 1.63 pounds per hour (lbs/hr) and 7.01 tons per year (TPY). [See b)(2)c.] Nitrogen oxide (NOx) emissions shall not exceed 10.54 lbs/hr and 45.32 TPY. Organic compound (OC) emissions shall not exceed 1.21 lbs/hr and 5.20 TPY. Carbon monoxide (CO) emissions shall not exceed 2.01 lbs/hr and 8.64 TPY. Formaldehyde emissions shall not exceed 0.50 lb/hr and 2.15 TPY.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Sulfur dioxide (SO2) emissions shall not exceed 0.50 lb/hr and 2.15 TPY
c.	40 CFR, Part 63, Subpart NNN [40 CFR 63.1380 – 1399] In accordance with 40 CFR 63.1380(b)(2), this emissions unit is an existing rotary spin wool fiberglass manufacturing line producing a bonded wool fiberglass building insulation product.]	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 0.6 kg of formaldehyde per mega gram (1.2 lb of formaldehyde per ton) of glass pulled.
d.	40 CFR 63.1 – 15 [40 CFR 63.1380(d)]	Table 1 of Subpart NNN of 40 CFR Part 63 – Applicability of General Provisions to Subpart NNN shows which parts of the general provisions in 40 CFR 63.1 -15 apply.
e.	40 CFR, Part 60, Subpart PPP	The permittee shall not cause to be discharged into the atmosphere from this emissions unit any gases which contain PE in excess of 5.5 kg/Mg (11.0 lbs/ton) of glass pulled.
f.	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.
g.	OAC rule 3745-17-11(B)	See b)(2)e.
h.	OAC rule 3745-21-07(G)(1)	See b)(2)f. and c)(2).
i.	OAC rule 3745-18-06(E)	See b)(2)e.
j.	OAC rule 3745-21-07(M)(4)	Exempt, pursuant to OAC rule 3745-21-07(M)(5)(d)(ii).

(2) Additional Terms and Conditions

a. The permittee has requested a federally enforceable restriction of 66.80 tons PE per rolling, 365-day period for purposes of avoiding PSD.

The combined annual PE from Line 89, which includes emissions units P047, P048, P049, P050, P051, P052, P054 and P055, shall not exceed 66.80 tons, based upon a rolling, 365-day summation of emissions.

b. The "Best Available Technology" (BAT) requirement for this emissions unit has been determined to be the use of a thermal incinerator.

c. All PE is assumed to be in the form of PM10.

d. The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the terms and conditions in this Permit to Install.

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.

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

f. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[c)(2), d)(2), e)(1)f.]

The emission limitations and control requirements from the amended 21-07 rule, and the associated operational restrictions and the monitoring, record keeping, and reporting requirements contained in this permit, shall become federally enforceable on the date the U.S. EPA approves the revised OAC rule 3745-21-07 as a revision to the Ohio State Implementation Plan. The following terms shall become federally enforceable after U.S. EPA approves the rule revision:

[c)(3), d)(3), e)(1)g.]

c) Operational Restrictions

(1) The maximum annual number of operating hours for this emissions unit shall not exceed 8600, based upon a rolling, 12-month summation of the monthly numbers of operating hours.

[Authority for term: OAC rule 3745-77-07(A)(1); PTI 03-10931]

(2) The permittee shall not employ any material in this emissions unit that does not comply with the following:

a. The volatile content of each material employed shall consist of only water and liquid organic material;

b. The liquid organic material shall comprise no more than 20% (by volume) of the volatile content; and

c. The volatile content of each material shall not be a photo-chemically reactive material.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(G); PTI 03-10931]

(3) The use of any liquid organic material or substance containing liquid organic material with a volatile content greater than twenty percent, by volume, is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(M)]

(4) The permittee must operate each incinerator used to control formaldehyde emissions such that any 3-hour block average temperature in the firebox does not fall below the average established during the performance test as specified in 40 CFR 63.1384.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(5) The permittee must 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(6) The permittee must 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 63.1384. 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each month for this emissions unit:

a. The composition of the volatile content of each material employed;

b. The liquid organic portion of the volatile content, in % by volume, of each material employed; and

c. Documentation on whether or not the volatile content of each material employed is a photo-chemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

(2) The permittee shall collect and record the following information each month for this emissions unit:

a. The composition of the volatile content of each material employed; and

b. The liquid organic portion of the volatile content, in % by volume, of each material employed;

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(M)]

(3) The permittee shall maintain the following daily records for this emissions unit:

a. the company identification for each product group manufactured;

b. the numbers of hours of production for each product group manufactured;

c. the calculated PE factor (lbs PE/hour of production), based upon the emission factor curve*, for each product group manufactured; and

d. the total PE rate (lbs/day), for all the product groups manufactured [summation of (c x b) for all product groups].

* The permittee calculates the hourly PE by employing a pac factor. The pack factor is the design density of each product produced multiplied by the design thickness of the same product. This resultant value is used to figure out the PE (lbs/hr) from the emission factor curve. The emission factor curve is a statistical polynomial and was derived from multiple stack tests on this emissions unit. The hourly PE calculated from the polynomial is then multiplied by the number of hours of production of the product for which the pack factor was calculated.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

(4) The permittee shall calculate and maintain daily records of the particulate emissions and the rolling 365-day emissions of particulates, in tons, for emissions units P047, P048, P049, P048, P049, P050, P051, P052, P054 and P055, combined.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

(5) The permittee shall maintain monthly records of the following information:

a. the operating hours for each month; and

b. the rolling, 12-month summation of the operating hours.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

(6) The permittee shall properly install, operate, and maintain a monitoring device that continuously measures and records the operating temperature in the firebox of each incinerator when the emissions unit(s) is/are in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:

a. all 3-hour blocks of time, when the emissions unit(s) controlled by the thermal oxidizer was/were in operation, during which the average combustion temperature within the firebox of each incinerator fell below the average

temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance; and

b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal oxidizer, and/or downtime of the monitoring equipment, when the associated emissions unit(s) was/were in operation.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-10931]

(7) Whenever the monitored average combustion temperature within the thermal oxidizer/incinerator deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the temperature readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range/limit based upon information obtained during future performance

tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

(8) The permittee must inspect each incinerator at least once per year according to the procedures in the operations, maintenance, and monitoring plan. At a minimum, an inspection must include the following:

a. Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation and clean pilot sensor, as necessary;

b. Ensure proper adjustment of combustion air and adjust, as necessary;

c. Inspect, when possible, internal structures, for example, baffles, to ensure structural integrity per the design specifications;

d. Inspect dampers, fans, and blowers for proper operation;

e. Inspect for proper sealing;

f. Inspect motors for proper operation;

g. Inspect combustion chamber refractory lining and clean and repair/replace lining, as necessary;

h. Inspect incinerator shell for corrosion and/or hot spots;

i. For the burn cycle that follows the inspection, document that the incinerator is operating properly and make any necessary adjustments;

j. Generally observe that the equipment is maintained in good operating condition; and

k. Complete all necessary repairs as soon as practicable.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(9) The permittee must monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation of binder.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(10) The permittee must monitor and record the formulation of each batch of binder used.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(11) The permittee must monitor and record at least once every 8 hours, the product (LOI) and product density of each bonded wool fiberglass product manufactured.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(12) 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(13) 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).

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(14) 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 must 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 must 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(15) 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 rotary spin 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. Incinerator operating temperature and results of periodic inspection of incinerator components, including any period when the temperature fell below the established average or the inspection identified problems with the incinerator, the date and time of the problem, when corrective actions were initiated, the cause of the problem, an explanation of the corrective actions taken, and when the cause of the problem was corrected.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. each period of time (start time and date, and end time and date) when the average combustion temperature within the firebox of each incinerator was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the incinerator;

c. each incident of deviation described in “a” or ”b” (above) where a prompt investigation was not conducted;

d. each incident of deviation described in “a” or “b” where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the firebox of the incinerator into compliance with the acceptable range, was determined to be necessary and was not taken;

e. each incident of deviation described in “a” or “b” where proper records were not maintained for the investigation and/or the corrective action(s);

f. each month during which a non-complying material [see c)(2)] was employed;

g. each month during which a non-complying material [see c)(3)] was employed;

h. all exceedances of the rolling, 12-month numbers of operating hours restriction of 8600; and

i. all exceedances of the rolling, 365-day PE limitation of 66.8 tons (for emissions units P047, P048, P049, P050, P051, P052, P054 and P055, combined).

These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

(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 recordkeeping requirements d)(15) and d)(16). When no deviations

have occurred, the owner or operator shall submit a report stating that no excess emissions occurred during the reporting period.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63.1386(e) and 40 CFR Part 63.10]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of the terms and conditions of this permit shall be determined in accordance with the following methods:

a. Emission Limitation:

66.80 tons PE per rolling, 365-day period (for emissions units P047, P048, P049, P050, P051, P052, P054 and P055, combined)

Applicable Compliance Method:

Compliance with the rolling, 365-day PE limitation shall be demonstrated by the record keeping requirements specified in d) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

b. Emission Limitations:

PE shall not exceed 1.63 lbs/hr and 7.01 tpy.

Applicable Compliance Method:

If required, compliance shall be demonstrated based on the results of stack testing conducted in accordance with Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

The annual emission limitation was developed by multiplying the hourly emission limitation by 8600, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation and the restriction on the annual number of hours of operation of 8600, compliance shall also be shown with the annual limitation.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

c. Emission Limitations:

OC emissions shall not exceed 1.21 lbs/hr and 5.20 tpy.

Applicable Compliance Method:

If required, compliance shall be demonstrated by stack testing conducted in accordance with Methods 1-4 and 18, 25 or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

The annual emission limitation was developed by multiplying the hourly emission limitation by 8600, and then dividing by 2000. Therefore, provided compliance is

shown with the hourly limitation and the restriction on the annual number of hours of operation of 8600, compliance shall also be shown with the annual limitation.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

d. Emission Limitations:

NOx emissions shall not exceed 10.54 lbs/hr and 45.32 tpy.

Applicable Compliance Method:

If required, compliance shall be demonstrated based on the results of stack testing conducted in accordance with Methods 1 - 4 and 7E of 40 CFR, Part 60, Appendix A.

The annual emission limitation was developed by multiplying the hourly emission limitation by 8600, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation and the restriction on the annual number of hours of operation of 8600, compliance shall also be shown with the annual limitation.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

e. Emission Limitations:

CO emissions shall not exceed 2.01 lbs/hr and 8.64 tpy.

Applicable Compliance Method:

If required, compliance shall be demonstrated by stack testing conducted in accordance with Methods 1 - 4 and 10 of 40 CFR, Part 60, Appendix A.

The annual emission limitation was developed by multiplying the hourly emission limitation by 8600, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation and the restriction on the annual number of hours of operation of 8600, compliance shall also be shown with the annual limitation.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

f. Emission Limitations:

Formaldehyde emissions shall not exceed 0.50 lb/hr and 2.15 tpy.

Applicable Compliance Method:

If required, compliance shall be demonstrated by stack testing conducted in accordance with Methods 1-4, 316 or 318 of 40 CFR, Part 60, Appendix A.

The annual emission limitation was developed by multiplying the hourly emission limitation by 8600, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation and the restriction on the annual number of hours of operation of 8600, compliance shall also be shown with the annual limitation.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

g. Emission Limitations:

SO2 emissions shall not exceed 0.50 lb/hr and 2.15 tpy.

Applicable Compliance Method:

If required, compliance shall be demonstrated by stack testing conducted in accordance with Methods 1 - 4 and 6 of 40 CFR, Part 60, Appendix A.

The annual emission limitation was developed by multiplying the hourly emission limitation by 8600, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation and the restriction on the annual number of hours of operation of 8600, compliance shall also be shown with the annual limitation.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

h. Emission Limitations:

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).

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(1)]

i. Emission Limitations:

PE shall not exceed 11.0 lbs/ton of glass pulled (5.5 kg/Mg).

Applicable Compliance Method:

If required, compliance with the allowable PE limitation above shall be determined based on the results of emission testing conducted in accordance with Methods 1 - 5E of 40 CFR, Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60 Subpart PPP and PTI 03-10931]

j. Emission Limitation:

Formaldehyde emissions shall not exceed 1.2 lbs per ton of glass pulled.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in the operation, maintenance and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) Unless disapproved by the Director, the permittee of a rotary spin 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 must not exceed 1 week in duration unless the Director approves a longer period. The permittee must 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 must inform the permittee of a decision to disapprove or must 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 63.1384]

g) Miscellaneous Requirements

(1) For all control device and 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 permittee shall conduct all additional performance tests according to the procedures 40 CFR part 63, subpart A and in 40 CFR part 63.1384.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) The written operations, maintenance and monitoring plan required by 40 CFR 63.1383(a) has been submitted and approved by the Administrator. This plan shall be updated if the control device and/or process operating parameters measured during the initial performance are modified in accordance with g)(1) above.

[Authority for term: OAC rule 3745-77-07(C)(1)]

8. P052, Unit 89 - Cooling Table

Operations, Property and/or Equipment Description:

Cooling table.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI #03-10931, issued December 6, 2001)	66.80 tons particulate emissions (PE) per rolling, 365-day period [See b)(2)a.]
b.	OAC rule 3745-31-05(A)(3) (PTI #03-10931, issued December 6, 2001)	The requirements of this rule also include compliance with the requirements of 40 CFR, Part 60 Subpart PPP, 40 CFR, Part 63 Subpart NNN, OAC rule 3745-31-05(D), OAC rule 3745-21-07(G) and OAC rule 3745-17-07(A). See b)(2)b. PE shall not exceed 1.53 pounds per hour (lbs/hr) and 6.58 tons per yr (tpy) [See b)(2)c.] Organic compound (OC) emissions shall not exceed 0.66 lbs/hr and 2.84 tpy. Formaldehyde emissions shall not exceed 0.35 lb/hr and 1.51 tpy.
c.	40 CFR, Part 63, Subpart NNN [40 CFR 63.1380-1399] [In accordance with 40 CFR 63.1380(b)(2), this emissions unit is an existing rotary spin wool fiberglass manufacturing line producing a bonded wool fiberglass	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 0.6 kg of formaldehyde per mega gram (1.2 lb of formaldehyde per ton) of glass pulled from each existing rotary spin manufacturing line.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	building insulation product.]	
d.	40 CFR, Part 60, Subpart PPP	The permittee shall not cause to be discharged into the atmosphere from this emissions unit any gases which contain PE in excess of 5.5 kg/Mg (11.0 lbs/ton) of glass pulled.
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.
f.	OAC rule 3745-17-11(B)	See b)(2)e.
g.	OAC rule 3745-21-07(G)(2)	None [See b)(2)f. and c)(5)]
h.	40 CFR 63.1-15 [40 CFR 63.1380(d)]	Table 1 of Subpart NNN of 40 CFR Part 63 – Applicability of General Provisions to Subpart NNN show which part of the general provisions in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

a. The permittee has requested a federally enforceable restriction of 66.80 tons PE per rolling, 365-day period for purposes of avoiding PSD.

b. The combined annual PE from Line 89, which includes emissions units P047, P048, P049, P050, P051, P052, P054 and P055, shall not exceed 66.80 tons, based upon a rolling, 365-day summation of emissions.

c. The "Best Available Technology" (BAT) requirement for this emissions unit has been determined to be the use of a venturi scrubber.

d. All PE is assumed to be in the form of PM10.

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

f. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[c)(7), d)(4), e(1)h.]

c) Operational Restrictions

(1) The maximum annual number of operating hours for this emissions unit shall not exceed 8600, based upon a rolling, 12-month summation of the monthly numbers of operating hours.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 03-10931]

(2) The permitee must initiate corrective action with 1 hour when the average pressure drop, liquid flow rate, or chemical feed rate for any 3-hour block period is outside the limits established during the performance test as specified in 40 CFR 63.1384 for each wet scrubbing control device and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

(3) The permittee must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR Part 64, Subpart D when any scrubber parameter is outside the limit(s) established during the performance test as specified in 40 CFR 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

(4) The permittee must operate each scrubber such that each monitored parameter is not outside the limit(s) established during the performance test as specified in 40 CFR 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1) and 40 CFR Part 63 Subpart NNN]

(5) The permittee must 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 part 63.1384(a)(9).

[Authority for term: OAC rule 3745-77-07(A)(1) and 40 CFR, Part 63.1382(b)(9)]

(6) The permittee must 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.

[Authority for term: OAC rule 3745-77-07(A)(1) and 40 CFR, Part 63.1382(b)(10)]

(7) The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01(C)(5), is prohibited.

[Authority for term: OAC rules 3745-77-07(A)(1), 3745-21-07(G) and PTI 03-10931]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain the following daily records for this emissions unit:

a. the company identification for each product group manufactured;

b. the numbers of hours of production for each product group manufactured;

c. the calculated PE factor (lbs PE/hour of production), based upon the emission factor curve*, for each product group manufactured; and

d. the total PE rate (lbs/day), for all the product groups manufactured [summation of (c x b) for all product groups].

* The permittee calculates the hourly PE by employing a pac factor. The pack factor is the design density of each product produced multiplied by the design thickness of the same product. This resultant value is used to figure out the PE (lbs/hr) from the emission factor curve. The emission factor curve is a statistical polynomial and was derived from multiple stack tests on this emissions unit. The hourly PE calculated from the polynomial is then multiplied by the number of hours of production of the product for which the pack factor was calculated.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-10931]

(2) The permittee shall calculate and maintain daily records of the particulate emissions and the rolling 365-day emissions of particulates, in tons, for emissions units P047, P048, P049, P048, P049, P050, P051, P052, P054 and P055, combined.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-10931]

(3) The permittee shall maintain monthly records of the following information:

a. the operating hours for each month; and

b. the rolling, 12-month summation of the operating hours.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-10931]

(4) The permittee shall maintain records of the following information each month 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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

(5) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable pressure drop across the scrubber, that must be maintained in order to demonstrate compliance, shall not be less than 8.4 inches w.c.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

(6) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable scrubber liquid flow rate, that shall be maintained in order to demonstrate compliance, shall not be less than 135 gallons per minute.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

(7) The shall install, calibrate, maintain, and operate monitoring devices that continuously monitor and record the gas pressure drop across each scrubber and scrubbing liquid flow rate to each scrubber according to the procedures in the operations, maintenance, and monitoring plan. The pressure drop monitor is to be certified by its manufacturer to be accurate within 250 Pascal (1 inch water gauge) over its operating range, and the flow rate monitor is to be certified by its manufacturer to be accurate within 5 percent over its operating range. The permittee must also continuously monitor and record the feed rate of any chemical(s) added to the scrubbing liquid.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; 40 CFR Part 63 Subpart PPP; PTI 03-10931]

(8) Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date the corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop and flow rate readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

These range(s) and/or limit(s) for the pressure drop and liquid flow rate are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop or liquid flow rate based upon information obtained during future performance tests that demonstrate compliance with the allowable particulate emission rate for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(9) All monitoring devices required under 40 CFR, Part 60, Subpart PPP shall be recalibrated quarterly in accordance with procedures under section 60.13(b).

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 60 Subpart PPP; PTI 03-10931]

(10) The permittee must monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation of binder.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(11) The permittee must monitor and record the formulation of each batch of binder used.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63Subpart NNN]

(12) The permittee must monitor and record at least once every 8 hours, the product Loss on Ignition (LOI) and product density of each bonded wool fiberglass product manufactured.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63.1383(l)]

(13) 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63.6]

(14) The permittee shall 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).

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63.10]

(15) 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 must 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 must 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63.10]

(16) 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 rotary spin 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. Scrubber pressure drop, scrubbing liquid flow rate, and any chemical additive (including chemical feed rate to the scrubber), including any period when a 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.

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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63.10]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubber and/or the liquid flow rate was/were outside of the appropriate range or exceeded the applicable limit contained in this permit;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;

c. each incident of deviation described in "a" or "b" (above) where a prompt investigation was not conducted;

d. each incident of deviation described in "a" or "b" where prompt corrective action, that would bring the pressure drop and/or liquid flow rate into compliance with the acceptable range, was determined to be necessary and was not taken;

e. each incident of deviation described in "a" or "b" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

f. all exceedances of the rolling, 12-month hours of operation restriction of 8600;

g. all exceedances of the rolling, 365-day PE limitation of 68.8 tons (for emissions units P047, P048, P049, P050, P051, P052, P054 and P055, combined); and

h. each month during which a photochemically reactive material was employed.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

(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 40 CFR part 63.1386(d). When no deviations have occurred, the permittee shall submit a report stating that no excess emissions occurred during the reporting period

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR, Part 63.1386; 40 CFR Part 63.10]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of the terms and conditions of this permit shall be determined in accordance with the following methods:

a. <u>Emission Limitation:</u>

66.80 tons PE per rolling, 365-day period (for emissions units P047, P048, P049, P050, P051, P052, P054 and P055, combined)

<u>Applicable Compliance Method:</u>

Compliance with the rolling, 365-day PE limitation shall be demonstrated by the record keeping requirements specified in d) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

b. Emission Limitations:

PE shall not exceed 1.53 lbs/hr and 6.58 tpy.

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation above shall be based on the results of stack testing conducted in accordance with Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

The annual emission limitation was developed by multiplying the hourly emission limitation by 8600, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation and the restriction on the annual number of hours of operation of 8600, compliance shall also be shown with the annual limitation.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

c. Emission Limitations:

OC emissions shall not exceed 0.66 lb/hr and 2.84 tpy.

Applicable Compliance Method:

If required, compliance shall be demonstrated by stack testing conducted in accordance with Method 18, 25 or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

The annual emission limitation was developed by multiplying the hourly emission limitation by 8600, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation and the restriction on the annual number of hours of operation of 8600, compliance shall also be shown with the annual limitation.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

d. Emission Limitations:

Formaldehyde emissions shall not exceed 0.35 lb/hr and 1.51 tpy.

Applicable Compliance Method:

If required, compliance shall be demonstrated by stack testing conducted in accordance with Method 316 or 318 of 40 CFR, Part 60, Appendix A.

The annual emission limitation was developed by multiplying the hourly emission limitation by 8600, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation and the restriction on the annual number of hours of operation of 8600, compliance shall also be shown with the annual limitation.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

e. Emission Limitations:

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).

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(1)]

f. Emission Limitations:

PE shall not exceed 11.0 lbs/ton of glass pulled (5.5 kg/Mg).

Applicable Compliance Method:

If required, compliance with the allowable PE limitation above shall be determined based on the results of emission testing conducted in accordance with Methods 1 - 5E of 40 CFR, Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 60 Subpart PPP; PTI 03-10931]

g. Emission Limitation:

Formaldehyde emissions shall not exceed 1.2 lbs per ton of glass pulled.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in the operation, maintenance and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) Unless disapproved by the Director, the permittee of a rotary spin 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 must not exceed 1 week in duration unless the Director approves a longer period. The permittee must 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 must inform the permittee of a decision to disapprove or must 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63.1384]

g) Miscellaneous Requirements

(1) For all control device and 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 permittee shall conduct all additional performance tests according to the procedures 40 CFR part 63, subpart A and in 40 CFR part 63.1384.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) The written operations, maintenance and monitoring plan required by 40 CFR 63.1383(a) has been submitted and approved by the Administrator. This plan shall be updated if the control device and/or process operating parameters measured during the initial performance are modified in accordance with g)(1) above.

[Authority for term: OAC rule 3745-77-07(C)(1)]

9. P060, Batch Receiving

Operations, Property and/or Equipment Description:

Raw material batch receiving system with baghouse

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #03-16294, issued July 6, 2006)	Particulate emissions (PE) shall not exceed 0.04 pound per hour (lb/hr) and 0.18 ton per year (tpy). See b)(2)a. & b)(2)b. Visible PE from the stack(s) servicing this emissions unit shall not exceed 5% opacity, as a six-minute average.
b.	OAC rule 3745-17-07(A)	See b)(2)c.
c.	OAC rule 3745-17-11(B)	See b)(2)c.

(2) Additional Terms and Conditions

a. The "Best Available Technology" (BAT) requirement for this emissions unit has been determined to be the use of a baghouse (Daybin dust collector) with an overall control efficiency of 99%.

b. All PE is assumed to be in the form of particulate matter less than 10 microns in size (PM10).

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

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

(2) Notwithstanding the frequency of reporting requirements specified in d)(1), 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 abnormal visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in d)(1).

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

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving 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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitations:</u> PE shall not exceed 0.04 lbs/hr and 0.18 tpy.

Applicable Compliance Method: The hourly allowable PE limitation was established by multiplying the maximum process weight rate (lb/hr) [as indicated in the permit application] by a controlled emission factor (lb/lb of glass] derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable PE limitation by testing in accordance with Methods 1-5 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

b. Emission Limitation: Visible PE from the stack(s) serving this emissions unit shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method: If required, compliance with the visible emission limitation for the baghouse stack shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

g) Miscellaneous Requirements

(1) None.

10. P082, Unit 807 - Forming and Collection

Operations, Property and/or Equipment Description:

Melts glass using natural gas to make glass fibers.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 03-16294, issued July 6, 2006)	The requirements of this rule also include compliance with the requirements of 40 CFR Part 63 Subpart NNN, OAC rule 3745-17-07(A) and OAC rule 3745-21-07(G). Particulate emissions (PE) shall not exceed 6.05 pounds per hour (lbs/hr) and 26.50 tons per year (tpy). [See b)(2)a.]. Carbon monoxide (CO) emissions shall not exceed 2.02 lbs/hr and 8.85 tpy. Organic compound (OC) emissions shall not exceed 1.87 lbs/hr and 8.19 tpy. Sulfur dioxide (SO2) emissions shall not exceed 0.21 lb/hr and 0.92 tpy.
b.	OAC rule 3745-17-07(A)	Visible PE from the stack(s) servicing this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.
c.	40 CFR Part 63, Subpart NNN [40 CFR 63.1380-1399] [In accordance with 40 CFR 63.1380(b)(3), this emissions unit is a new flame attenuation wool fiberglass manufacturing line producing a bonded pipe product.]	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 3.4 kilogram (kg) of formaldehyde per mega gram (Mg) (6.8 lbs of formaldehyde per ton) of glass pulled.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-21-07(G)(2)	None [See b)(2)d. and c)(1)]
e.	OAC rule 3745-17-11(B)	See b)(2)b.
f.	OAC rule 3745-21-08(B)	See b)(2)c.
g.	OAC rule 3745-18-06(E)	See b)(2)b.
h.	40 CFR 63.1-15 [CFR 63.1380(d)]	Table 1 of Subpart NNN of 40 CFR Part 63 – Applicability of General Provisions to Subpart NNN shows which parts of the general provisions in 40 CFR 63.1 -15 apply.

(2) Additional Terms and Conditions

a. All PE is assumed to be in the form of particulate matter less than 10 microns in size (PM10).

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).

c. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

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.

d. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[c)(1), d)(1) and e)(1)]

c) Operational Restrictions

(1) The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01, is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(2) The permitee must initiate corrective action with 1 hour when the average pressure drop, liquid flow rate, or chemical feed rate for any 3-hour block period is outside the limits established during the performance test as specified in 40 CFR 63.1384 for each wet scrubbing control device and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(3) The permittee must implement a Quality Improvement Plan (QIP) consistent with the compliance assurance monitoring provisions of 40 CFR Part 64, Subpart D when any scrubber parameter is outside the limit(s) established during the performance test as specified in 40 CFR 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(4) The permittee must operation each scrubber such that each monitored parameter is not outside the limit(s) established during the performance test as specified in 40 CFR 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(5) The permittee must use a resin in the formulation 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).

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(6) The permittee must 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 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information for this emissions unit:

a. the company identification for each liquid organic material employed in this emissions unit; and

b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(2) The shall install, calibrate, maintain, and operate monitoring devices that continuously monitor and record the gas pressure drop across each scrubber and scrubbing liquid flow rate to each scrubber according to the procedures in the operations, maintenance, and monitoring plan. The pressure drop monitor is to be certified by its manufacturer to be accurate within 250 Pascal (1 inch water gauge) over its operating range, and the flow rate monitor is to be certified by its manufacturer to be accurate within 5 percent over its operating range. The permittee must also continuously monitor and record the feed rate of any chemical(s) added to the scrubbing liquid.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(3) The permittee must monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation binder.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(4) The permittee must monitor and record the formulation of each batch of binder used.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(5) The permittee must monitor and record at least once every 8 hours, the product LOI and product density of each bonded wool fiberglass product manufactured.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(6) The permittee shall develop and implement a written plan as described in 40 CFR 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 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 of minimize emissions.

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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(7) The permittee shall also keep records of each event as required by 40 CFR 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 63.10(e)(3)(iv).

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(8) As required by 40 CFR 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 must 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 must 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(9) In addition to the general records required by 40 CFR 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. Scrubber pressure drop, scrubbing liquid flow rate, and any chemical additive (including chemical feed rate to the scrubber), including any period when a 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(10) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #03-16294, issued on July 6, 2006: d)(3), d)(7) and d)(11). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these

requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a photochemically reactive material was employed. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-16294]

(2) As required by 40 CFR 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 63.10(c) as well as the additional records required by the record keeping requirements of d)(10) and d)(11) of this section. When no deviations have occurred, the permittee shall submit a report stating that no excess emissions occurred during the reporting period.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitations:</u>

PE shall not exceed 6.05 lbs/hr and 26.50 tpy.

<u>Applicable Compliance Method:</u>

The hourly allowable PE limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable PE limitation by testing in accordance with Methods 1-5 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

b. <u>Emission Limitations:</u>

CO emissions shall not exceed 2.02 lbs/hr and 8.85 tpy.

Applicable Compliance Method:

The hourly allowable CO emission limitation was established by multiplying the maximum gas burning rate (mmcf/hr) [as indicated in the permit application] by an emission factor (lb/mmcf) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable CO emission limitation by testing in accordance with Methods 1-4 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

c. Emission Limitations:

OC emissions shall not exceed 1.87 lbs/hr and 8.19 tpy.

Applicable Compliance Method:

The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable OC emission limitation by testing in accordance with Method 1-4, and 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

d. Emission Limitations:

SO2 emissions shall not exceed 0.21 lb/hr and 0.92 tpy.

Applicable Compliance Method:

The hourly allowable SO2 emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable SO2 emission limitation by testing in accordance with Methods 1-4, and 6 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

e. Emission Limitation:

Formaldehyde emissions shall not exceed 6.8 lbs per ton of glass pulled.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in the operation, maintenance and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

f. Emission Limitation:

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

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(1); PTI 03-16294]

(2) Unless disapproved by the Director, the permittee 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 must not exceed 1 week in duration unless the Director approves a longer period. The permittee must 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 must inform the permittee of a decision to disapprove or must 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

g) Miscellaneous Requirements

(1) For all control device and 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 permittee shall conduct all additional performance tests according to the procedures 40 CFR part 63, subpart A and in 40 CFR part 63.1384.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) The written operations, maintenance and monitoring plan required by 40 CFR 63.1383(a) has been submitted and approved by the Administrator. This plan shall be updated if the control device and/or process operating parameters measured during the initial performance are modified in accordance with g)(1) above.

[Authority for term: OAC rule 3745-77-07(C)(1)]

11. P083, Unit 807 - Curing Oven and Sear Roll

Operations, Property and/or Equipment Description:

Fiber glass curing oven.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 03-16294 issued July 6, 2006)	The requirements of this rule also include compliance with the requirements of 40 CFR Part 63 Subpart NNN, OAC rule 3745-17-07(A) and OAC rule 3745-21-07(G). Particulate emissions (PE) shall not exceed 1.25 pounds per hour (lbs/hr) and 5.48 tons per year (tpy). [See b)(2)a.]. Carbon monoxide (CO) emissions shall not exceed 2.79 lbs/hr and 12.22 tpy. Organic compound (OC) emissions shall not exceed 1.14 lbs/hr and 4.99 tpy. Nitrogen oxide (NOx) emissions shall not exceed 1.09 lbs/hr and 4.77 tpy. Sulfur dioxide (SO2) emissions shall not exceed 0.30 lb/hr and 1.31 tpy.
b.	OAC rule 3745-17-07(A)	Visible PE from the stack(s) servicing this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.
c.	40 CFR Part 63, Subpart NNN [40 CFR 63.1380-1399] [In accordance with 40 CFR	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 3.4 kilogram (kg) of formaldehyde per mega gram (Mg) (6.8

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	63.1380(b)(3), this emissions unit is a new flame attenuation wool fiberglass manufacturing line producing a bonded pipe product.]	lbs of formaldehyde per ton) of glass pulled.
d.	OAC rule 3745-21-07(G)(1)	None [See b(2)d. and c)(1)]
e.	OAC rule 3745-17-11(B)	See b)(2)b.
f.	OAC rule 3745-18-06(E)	See b)(2)b.
g.	OAC rule 3745-21-08(B)	See b)(2)c.
h.	OAC rule 3745-21-07(M)(4)	Exempt pursuant to OAC rule 3745-21-07(M)(5)(d)(ii).
i.	40 CFR 63.1-15 [CFR 63.1380(d)]	Table 1 of Subpart NNN of 40 CFR Part 63 – Applicability of General Provisions to Subpart NNN shows which parts of the general provisions in 40 CFR 63.1 -15 apply.

(2) Additional Terms and Conditions

a. All PE is assumed to be in the form of particulate matter less than 10 microns in size (PM10).

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).

c. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

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.

d. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[c)(1), d)(3). e)(2).]

The emission limitations and control requirements from the amended 21-07 rule, and the associated operational restrictions and the monitoring, record keeping, and reporting requirements contained in this permit, shall become federally enforceable on the date the U.S. EPA approves the revised OAC rule 3745-21-07 as a revision to the Ohio State Implementation Plan. The following terms shall become federally enforceable after U.S. EPA approves the rule revision:

[c)(2), d)(4), e)(3)]

c) Operational Restrictions

(1) The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01, is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(2) The use of any liquid organic material or substance containing liquid organic material with a volatile content greater than twenty percent, by volume, is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(M)]

(3) The permittee must initiate corrective action within 1 hour when the monitored process parameter level(s) is outside the limit(s) established during the performance test as specified in 40 CFR 63.1384 for the process modification(s) used to control formaldehyde emissions and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(4) The permittee must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR Part 64, Subpart D when the process parameter(s) is outside the limits(s) established during the performance test as specified in 40 CFR 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(5) The permittee must 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 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(6) The permittee must use a resin in the formulation 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).

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(7) The permittee must 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 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

d) Monitoring and/or Recordkeeping Requirements

(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.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-16294]

(2) Notwithstanding the frequency of reporting requirements specified in d)(1), 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 abnormal visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in d)(1).

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-16294]

(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 in this emissions unit; and

b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(4) The permittee shall maintain monthly records of the following information for this emissions unit:

a. The composition of the volatile content of each material employ; and

b. The liquid organic portion of the volatile content, in % by volume, of each material employed.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(M)]

(5) The permittee must establish a correlation between formaldehyde emissions and a process parameter(s) to be monitored.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(6) The permittee must monitor the established parameter(s) according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(7) The permittee must 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 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).

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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(8) The permittee must monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation binder.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(9) The permittee must monitor and record the formulation of each batch of binder used.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(10) The permittee must monitor and record at least once every 8 hours, the product LOI and product density of each bonded wool fiberglass product manufactured.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(11) The permittee shall develop and implement a written plan as described in 40 CFR 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 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 of minimize emissions.

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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(12) The permittee shall also keep records of each event as required by 40 CFR 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 63.10(e)(3)(iv).

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(13) As required by 40 CFR 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 must 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 must 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(14) In addition to the general records required by 40 CFR 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. Process parameter level(s) for 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving 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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a photochemically reactive material was employed. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a non-complying material was employed. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 77-07(C)(1); OAC rule 3745-21-07(M)]

(4) As required by 40 CFR 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 63.10(c) as well as the additional records required by the record keeping requirements of paragraphs (d)(15) and d)(16). When no deviations have occurred, the permittee shall submit a report stating that no excess emissions occurred during the reporting period.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitations:</u>

PE shall not exceed 1.25 lbs/hr and 5.48 tpy.

<u>Applicable Compliance Method:</u>

The hourly allowable PE limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable PE limitation by testing in accordance with Methods 1-5 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

b. <u>Emission Limitations:</u>

CO emissions shall not exceed 2.79 lbs/hr and 12.22 tpy.

<u>Applicable Compliance Method:</u>

The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions

unit. If required, the permittee shall demonstrate compliance hourly allowable CO emission limitation by testing in accordance with Methods 1-4 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

c. Emission Limitations:

OC emissions shall not exceed 1.14 lbs/hr and 4.99 tpy.

Applicable Compliance Method:

The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable OC emission limitation by testing in accordance with Methods 1-4 and Method 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

d. Emission Limitations:

NOx emissions shall not exceed 1.09 lbs/hr and 4.77 tpy.

Applicable Compliance Method:

The hourly allowable NOx emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable NOx emission limitation by testing in accordance with Methods 1-4 and 7, 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

e. Emission Limitations:

SO2 emissions shall not exceed 0.30 lb/hr and 1.31 tpy.

Applicable Compliance Method:

The hourly allowable SO2 emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass] derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable SO2 emission limitation by testing in accordance with Methods 1-4 and 6, 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

f. Emission Limitation:

Formaldehyde emissions shall not exceed 6.8 lbs per ton of glass pulled.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in the operation, maintenance and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

g. Emission Limitation:

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

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-07(B); PTI 03-16294]

(2) Unless disapproved by the Director, the permittee of a rotary spin 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 must not exceed 1 week in duration unless the Director approves a longer period. The permittee must 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 must inform the permittee of a decision to disapprove or must 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 63.1384]

g) Miscellaneous Requirements

(1) For all control device and 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 permittee shall conduct all additional performance tests according to the procedures 40 CFR part 63, subpart A and in 40 CFR part 63.1384.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) The written operations, maintenance and monitoring plan required by 40 CFR 63.1383(a) has been submitted and approved by the Administrator. This plan shall be updated if the control device and/or process operating parameters measured during the initial performance are modified in accordance with g)(1) above.

[Authority for term: OAC rule 3745-77-07(C)(1)]

12. P084, Unit 807 - Finishing

Operations, Property and/or Equipment Description:

Product finishing.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 03-16294, issued July 6, 2006)	Particulate emissions (PE) shall not exceed 0.59 pound per hour (lb/hr) and 2.58 tons per year (tpy). Visible PE from the stack(s) serving this emissions unit shall not exceed 5% opacity, as a six-minute average. [See b)(2)a. and b)(2)b.]
b.	OAC rule 3745-17-07(A)	See b)(2)c.
c.	OAC rule 3745-17-11(B)	See b)(2)c.
d.	40 CFR Part 64 – Compliance Assurance Monitoring (CAM)	See c)(1) and d)(1) through d)(6).

(2) Additional Terms and Conditions

a. The "Best Available Technology" (BAT) requirement for this emissions unit has been determined to be the use of a control system consisting of a cyclone and baghouse (finishing dust collector). The control system shall achieve a 99% removal efficiency for PE (100% capture).

b. All PE is assumed to be in the form of particulate matter less than 10 microns in size (PM10).

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

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitations(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1.0 to 6.0 inches of water.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR 64.3(a)(2)]

(2) At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR 64.7(b)]

(3) After approval of monitoring under this part, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 or 71 permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR 64.7(e)]

(4) The CAM plan for this emissions unit has been developed for particulates. The CAM performance indicator for the baghouse controlling this emissions unit is pressure drop in inches of water which is based upon manufacturer's recommendations. When the pressure drop of the baghouse is operating outside the indicator range, the permittee shall take corrective action to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions and comply with the reporting requirements specified e). The emissions unit and control equipment shall be run in accordance with the approved CAM Plan, or any approved revision of the Plan. The baghouse operating parameter will be re-verified through periodic emission testing, or if the baghouse or emissions units operating conditions change. In addition to periodic monitoring of the baghouse operating parameter, the permittee also has an inspection and maintenance program for the baghouse. Based on the results of the monitoring and inspection program, repairs to the baghouse shall be made as needed. If the current CAM indicators and/or the baghouse inspection program are considered inadequate, the permittee will develop a Quality Improvement Plan.

[Authority for term: OAC rule 3745-77-07(A)(3)(a); OAC rule 3745-77-07(A)(3)(b); 40 CFR Part 64.3(a); 40 CFR Part 64.6(c); 40 CFR Part 64.7(d); 40 CFR Part 64.8]

(5) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled

emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on once-per-shift basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 64.3(a); 40 CFR Part 64.9(b)]

(6) Baghouse operating parameters shall be re-verified as a result of any changes to the operating conditions of the baghouse or emissions unit. In addition to periodic monitoring of the baghouse operating parameters, the permittee also has an inspection and maintenance program for the baghouse, including but not limited to:

a. checking the bags / filters for deterioration or degradation;

b. checking the cleaning system for proper operation; and

c. checking the hoppers and conveyance systems for proper operation.

Based on the results of the monitoring and inspection program, repairs to the baghouse shall be made as needed. If the current CAM indicators and/or the baghouse inspection program are considered inadequate, the permittee shall develop a Quality Improvement Plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR 64.7(e)]

(7) The permittee shall maintain a supply of replacement parts necessary to ensure ongoing proper operation of the baghouse system, including, but not limited to:

a. filter bags;

b. timing boards and solenoid coils (for blow down function);

c. diaphragms and diaphragm seal kits;

d. spare set of belts; and

e. spare bearings for blower motor.

[OAC rule 3745-77-07(C)(1); 40 CFR Part 64]

(8) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #03-16294, issued on July 6, 2008: [d)(4)]. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit(s):

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

d. each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-15-03(B)(1)(a); OAC rule 3745-15-03(C); OAC rule 3745-77-07(C)(1); 40 CFR Part 64.9(a)].

(2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install # 03-16294, issued on July 6, 2008: **[e)(1)]**. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii)]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitations:</u>

PE shall not exceed 0.59 lb/hr and 2.58 tpy.

<u>Applicable Compliance Method:</u>

The hourly allowable PE limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by a controlled emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable PE limitation by testing in accordance with Methods 1-5 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

b. Emission Limitation:

Visible PE from the stack(s) servicing this emissions unit shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation for the baghouse stack shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

g) Miscellaneous Requirements

(1) None.

13. P085, Offline Curing Unit

Operations, Property and/or Equipment Description:

Offline Curing Unit

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 03-16294, issued July 6, 2006)	The requirements of this rule also include compliance with the requirements of 40 CFR Part 63 Subpart NNN, OAC rule 3745-17-07(A) and OAC rule 3745-21-07(G). Particulate emissions (PE) shall not exceed 0.14 pound per hour (lb/hr) and 0.61 ton per year (tpy). [See b)(2)a.]. Carbon monoxide (CO) emissions shall not exceed 0.31 lbs/hr and 1.36 tpy. Sulfur dioxide (SO2) emissions shall not exceed 0.030 lb/hr and 0.13 tpy.
b.	OAC rule 3745-17-07(A)	Visible PE from the stack(s) servicing this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.
c.	40 CFR Part 63, Subpart NNN [40 CFR 63.1380-1399] [In accordance with 40 CFR 63.1380(b)(3), this emissions unit is a new flame attenuation wool fiberglass manufacturing line producing a bonded pipe product.]	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 3.4 kilogram (kg) of formaldehyde per mega gram (Mg) (6.8 lbs of formaldehyde per ton) of glass pulled.
d.	OAC rule 3745-21-07(G)	None [See b)(2)d. and c)(1)]
e.	OAC rule 3745-17-11(B)	See b)(2)b.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	OAC rule 3745-18-06(E)	See b)(2)b.
g.	OAC rule 3745-21-08(B)	See b)(2)c.
h.	OAC rule 3745-21-07(M)(4)	Exempt pursuant to OAC rule 3745-21-07(M)(5)(d)(ii).
i.	40 CFR 63.1-15 [CFR 63.1380(d)]	Table 1 of Subpart NNN of 40 CFR Part 63 – Applicability of General Provisions to Subpart NNN shows which parts of the general provisions in 40 CFR 63.1 -15 apply.

(2) Additional Terms and Conditions

a. All PE is assumed to be in the form of particulate matter less than 10 microns in size (PM10).

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).

c. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

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.

d. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[c)(1), d)(3), e)(2)]

The emission limitations and control requirements from the amended 21-07 rule, and the associated operational restrictions and the monitoring, record keeping, and reporting requirements contained in this permit, shall become federally enforceable on the date the U.S. EPA approves the revised OAC rule 3745-21-07 as a revision to the Ohio State Implementation Plan. The following terms shall become federally enforceable after U.S. EPA approves the rule revision:

[c)(2), d)(4), e)(3)]

c) Operational Restrictions

(1) The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01, is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(2) The use of any liquid organic material or substance containing liquid organic material with a volatile content greater than twenty percent, by volume, is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(M)]

(3) The permittee must initiate corrective action within 1 hour when the monitored process parameter level(s) is outside the limit(s) established during the performance test as specified in 40 CFR 63.1384 for the process modification(s) used to control formaldehyde emissions and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(4) The permittee must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR Part 64, Subpart D when the process parameter(s) is outside the limits(s) established during the performance test as specified in 40 CFR 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(5) The permittee must 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 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(6) The permittee must use a resin in the formulation 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).

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(7) The permittee must 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 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

d) Monitoring and/or Recordkeeping Requirements

(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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

(2) Notwithstanding the frequency of reporting requirements specified in e)(1), 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 abnormal visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section d)(1).

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

[Authority for term: OAC rule 3745-77-07(A)(1); PTI 03-16294]

(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 in this emissions unit; and

b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(4) The permittee shall maintain monthly records of the following information for this emissions unit:

a. The composition of the volatile content of each material employ; and

b. The liquid organic portion of the volatile content, in % by volume, of each material employed.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(M)]

(5) The permittee must establish a correlation between formaldehyde emissions and a process parameter(s) to be monitored.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(6) The permittee must monitor the established parameter(s) according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(7) The permittee must 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 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).

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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(8) The permittee must monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation binder.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(9) The permittee must monitor and record the formulation of each batch of binder used.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(10) The permittee must monitor and record at least once every 8 hours, the product LOI and product density of each bonded wool fiberglass product manufactured.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(11) The permittee shall develop and implement a written plan as described in 40 CFR 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 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 of minimize emissions.

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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(12) The permittee shall also keep records of each event as required by 40 CFR 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 63.10(e)(3)(iv).

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(13) As required by 40 CFR 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 must 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 must 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(14) In addition to the general records required by 40 CFR 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. 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving 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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a photochemically reactive material was employed. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a non-complying material was employed. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(M)]

(4) As required by 40 CFR 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 63.10(c) as well as the additional records required by the record keeping requirements of paragraphs d)(14) and d)(15). When no deviations have occurred, the permittee shall submit a report stating that no excess emissions occurred during the reporting period.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:

PE shall not exceed 0.14 lb/hr and 0.61 tpy.

Applicable Compliance Method:

The hourly allowable PE limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable PE limitation by testing in accordance with Methods 1-5 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

b. Emission Limitations:

CO emissions shall not exceed 0.31 lb/hr and 1.36 tpy.

Applicable Compliance Method:

The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable CO emission limitation by testing in accordance with Methods 1-4 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

c. Emission Limitations:

SO2 emissions shall not exceed 0.03 lb/hr and 0.13 tpy.

Applicable Compliance Method:

The hourly allowable SO2 emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass] derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable SO2 emission limitation by testing in accordance with Methods 1-4 and 6, 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

d. Emission Limitation:

Formaldehyde emissions shall not exceed 6.8 lbs per ton of glass pulled.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in the operation, maintenance and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

e. Emission Limitation:

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

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17(B); PTI 03-16294]

(2) Unless disapproved by the Director, the permittee 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 test without first conducting performance tests. Such runs must not exceed 1 week in duration unless the Director approves a longer period. The permittee must 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 must inform the permittee

of a decision to disapprove or must request additional information prior to the date of the short-term experimental production runs. Notification of the intent to perform and experimental short-term production runt 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

g) Miscellaneous Requirements

(1) For all control device and 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 permittee shall conduct all additional performance tests according to the procedures 40 CFR part 63, subpart A and in 40 CFR part 63.1384.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) The written operations, maintenance and monitoring plan required by 40 CFR 63.1383(a) has been submitted and approved by the Administrator. This plan shall be updated if the control device and/or process operating parameters measured during the initial performance are modified in accordance with g)(1) above.

[Authority for term: OAC rule 3745-77-07(C)(1)]

14. P086, Offline Finishing

Operations, Property and/or Equipment Description:

Offline Finishing (handwrap)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 03-16294, issued July 6, 2006)	Particulate emissions (PE) shall not exceed 0.07 pounds per hour (lbs/hr) and 0.31 tons per year (tpy). Visible PE from the stack(s) servicing this emissions unit shall not exceed 5% opacity, as a six-minute average. See b)(2)a. and b)(2)b.
b.	OAC rule 3745-17-07(A)	See b)(2)c.
c.	OAC rule 3745-17-11(B)	See b)(2)c.

(2) Additional Terms and Conditions

a. The "Best Available Technology" (BAT) requirement for this emissions unit has been determined to be the use of a control system consisting of a cyclone and baghouse (finishing dust collector). The control system shall achieve a 99% removal efficiency for PE (100% capture).

b. All PE is assumed to be in the form of particulate matter less than 10 microns in size (PM10).

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

c) Operational Restrictions

(1) None

d) Monitoring and/or Recordkeeping Requirements

(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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

(2) Notwithstanding the frequency of reporting requirements specified in d)(1), 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 abnormal visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in d)(1).

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

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving 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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:

PE shall not exceed 0.07 lb/hr and 0.31 tpy.

Applicable Compliance Method:

The hourly allowable PE limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by a controlled emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable PE limitation by testing in accordance with Methods 1-5 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

b. Emission Limitation:

Visible PE from the stack(s) servicing this emissions unit shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation for the baghouse stack shall be determined in accordance with Test Method 9 as set forth in “Appendix on Test Methods” in 40 CFR, Part 60 (“Standards of Performance for New Stationary Sources”), as such Appendix existed on July 1, 2002.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

g) Miscellaneous Requirements

(1) None.

15. P092, Unit 87 – forming and collection

Operations, Property and/or Equipment Description:

Melts glass unit natural gas to make glass fibers.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) g)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-10 through 20 (PTI 03-17389, issued April 22, 2008)	Carbon monoxide (CO) emissions shall not exceed 60.0 lbs/hr and 262.80 tons per rolling 12-month period. [See b(2)a.]
b.	OAC rule 3745-31-05(A)(3)(b)	See b)(2)b.
c.	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). Particulate matter equal to or less than 10 microns in size (PM_{10}) emissions shall not exceed 9.99 pounds per hour (lbs/hr) and 43.76 tons per year (tpy). [See b)(2)c.] Volatile organic compounds (VOC) emissions shall not exceed 3.20 lbs/hr and 14.02 tpy.
d.	OAC rule 3745-17-07(A)	Visible PE from the stack(s) serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.
e.	40 CFR Part 63, Subpart NNN	See b)(2)e.
f.	OAC rule 3745-21-07(G)(2)	See b)(2)g. and c)(1).
g.	OAC rule 3745-21-08(B)	See b)(2)d.
h.	OAC rule 3745-114-01 ORC 3704.03(F)	See g)(1).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
i.	OAC rule 3745-18-06(E)	See b)(2)f.

(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 “Best Available Technology” (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the nitrogen oxides (NOx) and sulfur dioxide (SO2) emissions from this air contaminant source since the uncontrolled potential to emit for each pollutant is less than ten tons per year.

The potential to emit for NOx emissions for this emissions unit is 5.39 tpy; determined by multiplying the maximum hourly emission rate of 1.23 lbs/hr (as determined by stack testing) by the maximum operating schedule of 8760 hours per year.

The potential to emit for SO2 emissions for this emissions unit is 0.88 tpy; determined by multiplying the maximum hourly emission rate of 0.20 lbs/hr (as determined by stack testing) by the maximum operating schedule of 8760 hours per year.

c. All particulate matter emissions are PM10.

d. The design of the emissions unit and the technology associated with the current operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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.

e. 40 CFR Part 63 Subpart NNN is not applicable to existing flame attenuation lines producing bonded heavy-density product. For the purpose of 40 CFR 63 Subpart NNN, this modified emissions unit is still considered an existing emissions unit. (The modifications performed do not constitute reconstruction as defined in 40 CFR 63.2)

f. The potential to emit for SO2 from this emissions unit [See b)(2)b] is less than the allowable emission limitation established pursuant to this rule.

g. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the

U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[c)(1), d)(3) and e)(2)]

c) Operational Restrictions

(1) The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01, is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); PTI 03-17389]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform checks at least five (5) days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the 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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17389]

(2) Notwithstanding the frequency of reporting requirements specified in d)(1), the permittee may reduce the frequency of visual observations from at least five (5) days per week to weekly readings for this emissions unit 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 d)(1).

c. The permittee shall revert to readings of five (5) days per week if any abnormal visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17389]

(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 in this emissions unit; and

b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17389]

e) 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, (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous six-month periods.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17389]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a photochemically reactive material was employed. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17389]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitations:</u>

PM_{10} emissions shall not exceed 9.99 lbs/hr and 43.76 tpy.

<u>Applicable Compliance Method:</u>

The hourly allowable PM_{10} limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative

U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17389]

b. Emission Limitations:

CO emissions shall not exceed 60.0 lbs/hr and 262.80 tons per rolling 12-month period.

Applicable Compliance Method:

The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17389]

c. Emission Limitations:

VOC emissions shall not exceed 3.20 lbs/hr and 14.02 tpy.

Applicable Compliance Method:

The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Method 1-4, and 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17389]

d. Emission Limitation:

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

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17389]

g) Miscellaneous Requirements

(1) Modeling to demonstrate compliance with ORC 3704.03(F)(4)(b) ["Review of New Sources of Air Toxics Emissions, Option A."] was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, 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 toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install..

16. P093, Unit 87 - Curing Oven

Operations, Property and/or Equipment Description:

Fiber glass curing oven.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 03-17015, issued January 10, 2006)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). Particulate matter of 10 microns or less (PM10) shall not exceed 1.78 pounds per hour (lbs/hr) and 7.80 tons per year (tpy) [See b)(2)a.]. Carbon monoxide (CO) emissions shall not exceed 4.37 lbs/hr and 19.14 tpy. Organic compound (OC) emissions shall not exceed 2.88 lbs/hr and 12.61 tpy. [See b)(2)f.] Nitrogen oxide (NOx) emissions shall not exceed 3.66 lbs/hr and 16.03 tpy. Sulfur dioxide (SO2) emissions shall not exceed 0.09 lb/hr and 0.39 tpy. Formaldehyde emissions shall not exceed 0.82 lb/hr and 3.59 tpy.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from the stack(s) servicing this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.
c.	40 CFR Part 63, Subpart NNN	See b)(2)d.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-21-07(G)(1)	None [See b)(2)e. and c)(1)]
e.	OAC rule 3745-17-11(B)	See b)(2)b.
f.	OAC rule 3745-21-08(B)	See b)(2)c.
g.	OAC rule 3745-18-06(E)	See b)(2)b.
h.	OAC rule 3745-21-07(M)(4)	Exempt pursuant to OAC rule 3745-21-07(M)(5)(d)(ii).

(2) Additional Terms and Conditions

a. All particulate matter emissions are PM_{10}.

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).

c. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

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.

d. 40 CFR Part 63 Subpart NNN is not applicable to existing flame attenuation lines producing bonded heavy-density product. For the purpose of 40 CFR 63 Subpart NNN, this modified emissions unit is still considered an existing emissions unit. (The modifications performed do not constitute reconstruction as defined in 40 CFR 63.2)

e. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[c)(1), d)(3) and e)(2)]

The emission limitations and control requirements from the amended 21-07 rule, and the associated operational restrictions and the monitoring, record keeping, and reporting requirements contained in this permit, shall become federally enforceable on the date the U.S. EPA approves the revised OAC rule 3745-21-

07 as a revision to the Ohio State Implementation Plan. The following terms shall become federally enforceable after U.S. EPA approves the rule revision:

[c)(2), d)(4) and e)(3)]

f. All OC are volatile organic compounds (VOC).

c) Operational Restrictions

(1) The permittee shall not employ any material in this emissions unit that does not comply with the following:

a. the volatile content of each material employed shall consist of only water and liquid organic material;

b. the liquid organic material shall comprise no more than 20% (by volume) of the volatile content; and

c. the volatile content of each material shall not be a photo-chemically reactive material.

[Authority for term: OAC rules 3745-77-07(A)(1) and PTI 03-17015]

(2) The use of any liquid organic material or substance containing liquid organic material with a volatile content greater than twenty percent, by volume, is prohibited.

[Authority for term: OAC rules 3745-77-07(A)(1) and 3745-21-07(M)]

d) Monitoring and/or Recordkeeping Requirements

(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.

[Authority for term: OAC rules 3745-77-07(C)(1) and PTI 03-17015]

(2) Notwithstanding the frequency of reporting requirements specified in d)(1), 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 abnormal visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in d)(1).

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

[Authority for term: OAC rules 3745-77-07(C)(1) and PTI 03-17015]

(3) The permittee shall collect and record the following information each month for this emissions unit:

a. the composition of the volatile content of each material employed;

b. the liquid organic portion of the volatile content, in % by volume, of each material employed; and

c. documentation on whether or not the volatile content of each material employed is a photo-chemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-17015]

(4) The permittee shall collect and record the following information each month for this emissions unit:

a. The company identification for each liquid organic material employed in this emissions unit; and

b. The liquid organic portion of the volatile content, in % by volume, of each material employed).

[Authority for term: OAC rules 3745-77-07(C)(1) and 3745-21-07(M)]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-17015]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a non-complying material [as specified in c)(1)] was employed. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-17015]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a non-complying material [as specified in c)(2)] was employed. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(M)]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:

PM_{10} emissions shall not exceed 1.78 lbs/hr and 7.80 tpy.

Applicable Compliance Method:

The hourly allowable PM_{10} limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

b. Emission Limitations:

CO emissions shall not exceed 4.37 lbs/hr and 19.14 tpy.

Applicable Compliance Method:

The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions

unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

c. Emission Limitations:

OC emissions shall not exceed 2.88 lbs/hr and 12.61 tpy.

Applicable Compliance Method:

The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Method 1-4, and 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

d. Emission Limitations:

NOx emissions shall not exceed 3.66 lbs/hr and 16.03 tpy.

Applicable Compliance Method:

The hourly allowable NOx emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

e. Emission Limitations:

SO2 emissions shall not exceed 0.09 lb/hr and 0.39 tpy.

Applicable Compliance Method:

The hourly allowable SO2 emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions

unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

f. Emission Limitations:

Formaldehyde emissions shall not exceed 0.82 lb/hr and 3.59 tpy.

Applicable Compliance Method:

The hourly allowable formaldehyde emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 316 or 318 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

g. Emission Limitation:

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

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) None.

17. P301, Unit 21 - Forming and Collection

Operations, Property and/or Equipment Description:

Melts glass using natural gas to make glass fibers.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-11(B)(1)	See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from the stack(s) servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
c.	OAC rule 3745-21-07(G)	None [See b)(2)b. and b)(2)c.]
d.	40 CFR Part 63, Subpart NNN [40 CFR 63.1380-1399] [In accordance with 40 CFR 63.1380(b)(3), this emissions unit is an existing flame attenuation wool fiberglass manufacturing line producing a bonded pipe product.]	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 3.4 kilograms of formaldehyde per mega gram (6.8 pounds of formaldehyde per ton) of glass pulled.
e.	40 CFR 63.1-15 [CFR 63.1380(d)]	Table 1 of Subpart NNN of 40 CFR Part 63 – Applicability of General Provisions to Subpart NNN shows which parts of the general provisions in 40 CFR 63.1 -15 apply.

(2) Additional Terms and Conditions

a. PE from this emissions unit shall be less than 10 pounds per hour*.

* 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).

b. This emissions unit is located in Defiance County, which is not a "Priority I" county as indicated in paragraph (A) of OAC rule 3745-21-06 and was installed prior to February 15, 1972. Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).

c. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 provisions still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

(1) The permittee must initiate corrective action within 1 hour when the monitored process parameter level(s) is outside the limit(s) established during the performance test as specified in 40 CFR 63.1384 for the process modification(s) used to control formaldehyde emissions and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(2) The permittee must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR Part 64, Subpart D when the process parameter(s) is outside the limits(s) established during the performance test as specified in 40 CFR 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(3) The permittee must 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 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(4) The permittee must 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 part 63.1384(a)(9).

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(5) The permittee must 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

d) Monitoring and/or Recordkeeping Requirements

(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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) Notwithstanding the frequency of reporting requirements specified in d)(1), 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 abnormal visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in d)(1).

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee must establish a correlation between formaldehyde emissions and a process parameter(s) to be monitored.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(4) The permittee must monitor the established parameter(s) according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(5) The permittee must 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 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).

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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(6) The permittee must monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation binder.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(7) The permittee must monitor and record the formulation of each batch of binder used.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(8) The permittee must monitor and record at least once every 8 hours, the product LOI and product density of each bonded wool fiberglass product manufactured.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(9) The permittee shall develop and implement a written plan as described in 40 CFR 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 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 of minimize emissions.

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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(10) The permittee shall also keep records of each event as required by 40 CFR 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 63.10(e)(3)(iv).

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(11) As required by 40 CFR 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 must 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 must 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(12) In addition to the general records required by 40 CFR 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. 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving 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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) As required by 40 CFR 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 63.10(c) as well as the additional records required by the record keeping requirements of paragraphs d)(13) and d)(14). When no deviations have occurred, the permittee shall submit a report stating that no excess emissions occurred during the reporting period.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitation:</u>

PE shall be less than 10.0 lbs/hr

<u>Applicable Compliance Method:</u>

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

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(10)]

b. <u>Emission Limitation:</u>

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

<u>Applicable Compliance Method:</u>

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).

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(1)]

c. <u>Emission Limitation:</u>

Formaldehyde emissions shall not exceed 6.8 lbs per ton of glass pulled.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in the operation, maintenance and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) Unless disapproved by the Director, the 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 test without first conducting performance tests. Such runs must not exceed 1 week in duration unless the Director approves a longer period. The permittee must 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 must inform the permittee of a decision to disapprove or must request additional information prior to the date of the short-term experimental production runs. Notification of the intent to perform and experimental short-term production runt 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.

g) Miscellaneous Requirements

(1) For all control device and 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 permittee shall conduct all additional performance tests according to the procedures 40 CFR part 63, subpart A and in 40 CFR part 63.1384.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) The written operations, maintenance and monitoring plan required by 40 CFR 63.1383(a) has been submitted and approved by the Administrator. This plan shall be updated if the control device and/or process operating parameters measured during the initial performance are modified in accordance with g)(1) above.

[Authority for term: OAC rule 3745-77-07(C)(1)]

18. P308, Unit 23 - Forming and Collection

Operations, Property and/or Equipment Description:

Melts glass using natural gas to make glass fibers.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rules 3745-31-10 through 20 (PTI 03-13943, issued May 22, 2003)	Carbon monoxide (CO) emissions shall not exceed 74.73 pounds per hour (lbs/hr). See b)(2)a.
b.	OAC rule 3745-31-05(D) (PTI 03-13943, issued May 22, 2003)	CO emissions shall not exceed 262.87 tons per rolling 12-month period based upon a restriction on glass pull rates. Particulate emissions (PE) shall not exceed 29.73 tons per rolling 12-month period based upon a restriction on glass pull rates [See b)(2)c.] Organic compound (OC) emissions shall not exceed 21.41 tons per rolling 12-month period based upon a restriction on glass pull rates [See b)(2)d.] Nitrogen oxide (NOx) emissions shall not exceed 16.84 tons per rolling 12-month period based upon a restriction on glass pull rates. Fluoride emissions shall not exceed 1.04 tons per rolling 12-month period based upon a restriction on glass pull rates. See b)(2)b.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-10 through 20, OAC rule 3745-17-07(A), OAC rule 3745-21-07(G), 3745-31-05(D), 3745-23-06(B) and 3745-18-06(E). PE shall not exceed 9.92 lbs/hr. OC emissions shall not exceed 5.12 lbs/hr. NOx emissions shall not exceed 6.32 lbs/hr. Fluoride emissions shall not exceed 0.39 lb/hr.
d.	OAC rule 3745-17-11(B)	See b)(2)f.
e.	OAC rule 3745-17-07(A)	See b)(2)g.
f.	OAC rule 3745-21-07(G)	See b)(2)h. and c)(1).
g.	OAC rule 3745-18-06(E)	None [See b)(2)i.].
h.	OAC rule 3745-21-08(B)	See b)(2)j.
i.	40 CFR Part 63 Subpart NNN	See b)(2)e.

(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 PTI #03-13943 by limiting the annual glass pull rate for the two highest emitting product groups manufactured in this emissions unit [See c)(2) and c)(3)].

c. All PE is assumed to be in the form of PM10.

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 it is a modified existing source that produces bonded, heavy-density product.

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

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

h. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[c)(1), d)(3), e)(2)]

i. This emissions unit is exempt from the requirements of OAC rule 3745-18-06(E) pursuant to OAC rule 3745-18-06(C) because the process weight rate is less than 1,000 pounds per hour.

j. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

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.

c) Operational Restrictions

(1) The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01, is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); PTI 03-13943]

(2) 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.

[Authority for term: OAC rule 3745-77-07(A)(1); PTI 03-13943]

(3) 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.

[Authority for term: OAC rule 3745-77-07(A)(1); PTI 03-13943]

d) Monitoring and/or Recordkeeping Requirements

(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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

(2) Notwithstanding the frequency of reporting requirements specified in d)(1), 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 abnormal visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in d)(1).

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

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

(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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

(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. The rolling, 12-month summation of the monthly glass pull rates for high efficiency products manufactured, in pounds; and

e. The rolling, 12-month summation of the monthly glass pull rates for low-medium efficiency products manufactured, in pounds.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

(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, NOx and fluorides [d)(5)a. x the product-specific emission factor*] for each product group manufactured, in tons.

c. The total emission rates for CO, PE, OC, NOx and fluorides for all the product groups manufactured [summation of d)(5)b. for all products], in tons; and

d. The rolling, 12-month summations of the monthly CO, PE, OC, NOx 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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving 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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

(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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify exceedances of the following:

a. The rolling, 12-month glass pull rate limitations for low-medium and high efficiency products of 780,000 and 813,120 tons, respectively;

b. The rolling 12-month emission limitations for CO, PE, OC, NOx and fluorides.

The quarterly deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

f) 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 after issuance of the permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for CO in the appropriate averaging period(s)

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

i. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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).

f. Personnel from the appropriate Ohio EPA District Office or local air agency 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.

g. 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 appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) Compliance with the emission limitations in b)(1) 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 d)(4) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

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 d)(4) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

c. Emission Limitations:

CO shall not exceed 74.73 lbs/hr and 262.87 tons per rolling 12-month period

Applicable Compliance Method:

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

hourly emission limitation shall be demonstrated through the testing required in f)(1).

Compliance with the annual emission limitation shall be demonstrated by the record keeping requirements specified in d)(5) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

d. Emission Limitations:

PE shall not exceed 9.92 lbs/hr and 29.73 tons per rolling 12-month period

Applicable Compliance Method:

The hourly emission limitation was established by multiplying the maximum glass pull rate (tons/hr) by the emission factor for PE (lbs/ton)*. If required, compliance with the hourly emission 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 emission limitation shall be demonstrated by the record keeping requirements specified in d)(5) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

e. Emission Limitations:

OC shall not exceed 5.12 lbs/hr and 21.41 tons per rolling 12-month period

Applicable Compliance Method:

The hourly emission limitation was established by multiplying the maximum glass pull rate (tons/hr) by the emission factor for OC (lbs/ton)*. If required, compliance with the hourly emission limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be demonstrated by the record keeping requirements specified in d)(5) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

f. Emission Limitations:

NOx shall not exceed 6.32 lbs/hr and 16.84 tons per rolling 12-month period

Applicable Compliance Method:

The hourly emission limitation was established by multiplying the maximum glass pull rate (tons/hr) by the emission factor for NOx (lbs/ton). If required, compliance with the hourly emission limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be demonstrated by the record keeping requirements specified in d)(5) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

g. Emission Limitations:

Fluorides shall not exceed 0.39 lb/hr and 1.04 tons per rolling 12-month period

Applicable Compliance Method:

The hourly emission limitation was established by multiplying the maximum glass pull rate (tons/hr) by the emission factor for fluorides (lbs/ton)*. If required, compliance with the hourly emission limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 13 or 26, as appropriate, of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be demonstrated by the record keeping requirements specified in d)(5) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

h. Emission Limitation:

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

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(1); PTI 03-13943]

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

g) Miscellaneous Requirements

(1) None.

19. P309, Unit 24 - Forming and Collection

Operations, Property and/or Equipment Description:

Melts glass using natural gas to make glass fibers.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-10 through 20 (PTI 03-13943, issued May 22, 2003)	See b)(2)a. Carbon monoxide (CO) emissions shall not exceed 99.63 pounds per hour (lbs/hr).
b.	OAC rule 3745-31-05(D) (PTI 03-13943, issued May 22, 2003)	See b)(2)b. CO emissions shall not exceed 246.69 tons per rolling, 12-month period based upon a restriction on glass pull rates. Particulate (PE) emissions shall not exceed 34.89 tons per rolling, 12-month period based upon a restriction on glass pull rates. [See b)(2)c.] Organic compounds (OC) shall not exceed 26.29 tons per rolling, 12-month period based upon a restriction on glass pull rates [See b)(2)d.] Nitrogen oxides (NOx) shall not exceed 17.56 tons per rolling, 12-month period based upon a restriction on glass pull rates. Fluoride emissions shall not exceed 1.10 tons per rolling, 12-month period based upon a restriction on glass pull rates.
c.	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		compliance with the requirements of OAC rule 3745-31-10 through 20, OAC rule 3745-17-07(A), OAC rule 3745-21-07(G), 3745-31-05(D), and 3745-18-06(E). PE shall not exceed 8.28 lbs/hr. OC emissions shall not exceed 6.82 lbs/hr. NOx emissions shall not exceed 4.14 lbs/hr. Fluoride emissions shall not exceed 0.26 lb/hr.
d.	OAC rule 3745-17-07(A)	See b)(2)e.
e.	OAC rule 3745-17-11(B)	See b)(2)f.
f.	OAC rule 3745-21-07(G)	See b)(2)h. and c)(1)
g.	40 CFR Part 63 Subpart NNN	See b)(2)g.
h.	OAC rule 3745-18-06(E)	See b)(2)i.
i.	OAC rule 3745-21-08(B)	See b)(2)j.

(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 PTI #03-13943 by limiting the annual glass pull rate for the two highest emitting product groups manufactured in this emissions unit.

c. All PE is assumed to be in the form of PM10.

d. For purposes of federal enforceability the restriction of OC's effectively restricts volatile organic compounds (VOC).

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

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

g. 40 CFR, Part 63, Subpart NNN is not applicable to this emissions unit because it is a modified existing source that produces bonded, heavy-density product.

h. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of

the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[c)(1), d)(3), e(2).]

i. This emissions unit is exempt from the requirements of OAC rule 3745-18-06(E) pursuant to OAC rule 3745-18-06(C) because the process weight rate is less than 1,000 pounds per hour.

j. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

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.

c) Operational Restrictions

(1) The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01, is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); PTI 03-13943]

(2) The maximum annual glass pull rate for Aircraft and Aerospace (AA) products shall not exceed 1,200,000 pounds, based upon a rolling 12-month summation of the monthly low-medium efficiency products glass pull rates.

[Authority for term: OAC rule 3745-77-07(A)(1); PTI 03-13943]

(3) The maximum annual glass pull rate 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.

[Authority for term: OAC rule 3745-77-07(A)(1); PTI 03-13943]

d) Monitoring and/or Recordkeeping Requirements

(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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

(2) Notwithstanding the frequency of reporting requirements specified in d)(1), 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 abnormal visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in d)(1).

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

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

(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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

(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. The rolling, 12-month summation of the monthly glass pull rates for high efficiency products manufactured, in pounds; and

e. The rolling, 12-month summation of the monthly glass pull rates for AA products manufactured, in pounds.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

(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, NOx and fluorides [d)(5)a. x the product-specific emission factor*] for each product group manufactured, in tons.

c. The total emission rates for CO, PE, OC, NOx and fluorides for all the product groups manufactured [summation of d)(5)b. for all products], in tons; and

d. The rolling, 12-month summations of the monthly CO, PE, OC, NOx 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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving 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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

(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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify exceedances of the following:

a. The rolling, 12-month glass pull rate limitations for AA and high efficiency products of 1,200,000 and 485,760 tons, respectively;

b. The rolling 12-month emission limitations for CO, PE, OC, NOx and fluorides.

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

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

f) 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 after issuance of the permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for CO in the appropriate averaging period(s)

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

i. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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).

f. Personnel from the appropriate Ohio EPA District Office or local air agency 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.

g. 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 appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

The maximum annual glass pull rate for AA products shall not exceed 1,200,000 pounds, based upon a rolling 12-month summation of the monthly AA 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 d)(4) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

b. Emission Limitation:

The maximum annual glass pull rate 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.

Applicable Compliance Method:

Compliance with the annual glass pull rate restriction above shall be demonstrated by the record keeping requirements specified in d)(4) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

c. Emission Limitations:

CO shall not exceed 99.63 lbs/hr and 246.69 tons per rolling 12-month period

Applicable Compliance Method:

The hourly emission limitation was established by multiplying the maximum glass pull rate (tons/hr) by the emission factor for CO (lbs/ton)*. Compliance with the hourly emission limitation shall be demonstrated through the testing required in f)(1).

Compliance with the annual emission limitation shall be demonstrated by the record keeping requirements specified in d)(5) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

d. Emission Limitations:

PE shall not exceed 8.28 lbs/hr and 34.89 tons per rolling 12-month period

Applicable Compliance Method:

The hourly emission limitation was established by multiplying the maximum glass pull rate (tons/hr) by the emission factor for PE (lbs/ton)*. If required, compliance with the hourly emission 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 emission limitation shall be demonstrated by the record keeping requirements specified in d)(5) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

e. Emission Limitations:

OC emissions shall not exceed 6.82 lbs/hr and 26.29 tons per rolling 12-month period

Applicable Compliance Method:

The hourly emission limitation was established by multiplying the maximum glass pull rate (tons/hr) by the emission factor for OC (lbs/ton)*. If required, compliance with the hourly emission limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be demonstrated by the record keeping requirements specified in d)(5) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

f. Emission Limitations:

NOx emissions shall not exceed 4.14 lbs/hr and 17.56 tons per rolling 12-month period

Applicable Compliance Method:

The hourly emission limitation was established by multiplying the maximum glass pull rate (tons/hr) by the emission factor for NOx (lbs/ton)*. If required, compliance with the hourly emission limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be demonstrated by the record keeping requirements specified in d)(5) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

g. Emission Limitations:

Fluoride emissions shall not exceed 0.26 lb/hr and 1.10 tons per rolling 12-month period

Applicable Compliance Method:

The hourly emission limitation was established by multiplying the maximum glass pull rate (tons/hr) by the emission factor for fluorides (lbs/ton)*. If required, compliance with the hourly emission limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 13 or 26, as appropriate, of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be demonstrated by the record keeping requirements specified in d)(5) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-13943]

h. Emission Limitation:

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

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(1); PTI 03-13943]

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

g) Miscellaneous Requirements

(1) None.

20. P317, Unit 24 –Fiberglass Curing Oven

Operations, Property and/or Equipment Description:

The oven process cures fiberglass product.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-11(B)(1)	Particulate emissions (PE) shall not exceed 1.30 pounds per hour (lbs/hr).
b.	OAC rule 3745-17-07(A)	Visible PE from the stacks servicing these emissions units shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
c.	OAC rule 3745-18-06(E)	None [See b)(2)a.]
d.	OAC rule 3745-21-07(G)	None [See b)(2)b. and b)(2)c.]

(2) Additional Terms and Conditions

a. This emissions unit is exempt from the requirements of OAC rule 3745-18-06(E) pursuant to OAC rule 3745-18-06(C) because the process weight rate (natural gas) is less than 1,000 pounds per hour.

b. This emissions unit is located in Defiance County, which is not a “Priority I” county as indicated in paragraph (A) of OAC rule 3745-21-06 and was installed prior to February 15, 1972. Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).

c. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio’s State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 provisions still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

(1) None

d) Monitoring and/or Recordkeeping Requirements

(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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) Notwithstanding the frequency of reporting requirements specified in d)(1), 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 d)(1).

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:

PE shall not exceed 1.30 lbs/hr.

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(10)]

b. 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 with the visible PE limitation in accordance with the methods in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(1)]

g) Miscellaneous Requirements

(1) None.

21. P325, Unit 21 - Fiberglass Pipe Curing Oven

Operations, Property and/or Equipment Description:

The oven process cures fiberglass pipe insulation.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 03-03282 issued November 16, 2000)	The requirements of this rule also include compliance with the requirements of 40 CFR, Part 63 Subpart NNN and OAC rule 3745-17-11(B)(1), 3745-17-07(A), 3745-18-06(E) and 3745-21-07(G). PE shall not exceed 6.22 tons per year (tpy). Sulfur dioxide (SO2) emissions shall not exceed 1.52 lbs/hr and 6.7 tpy. Carbon monoxide (CO) emissions shall not exceed 1.87 lbs/hr and 8.20 tpy. Nitrogen oxides (NOx) emissions shall not exceed 1.16 lbs/hr and 5.10 tpy. Organic compound (OC) emissions shall not exceed 2.99 lbs/hr and 13.10 tpy. [See b)(2)a.]
b.	OAC rule 3745-17-11(B)(1)	Particulate emissions (PE) shall not exceed 1.42 pounds per hour (lbs/hr). [See b)(2)b.]
c.	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.
d.	40 CFR Part 63 Subpart NNN	The permittee shall not discharge or

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	[40 CFR 63.1380-1399] [In accordance with 40 CFR 63.1380(b)(3), this emissions unit is an existing flame attenuation wool fiberglass manufacturing line producing a bonded pipe product.]	cause to be discharged into the atmosphere in excess of 3.4 kg of formaldehyde per mega gram (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.
e.	OAC rule 3745-21-07(G)	None [See c)(1) and b)(2)c.].
f.	OAC rule 3745-21-07(M)(4)	Exempt pursuant to OAC rule 3745-21-07(M)(5)(d)(ii).
g.	OAC rule 3745-21-08(B)	See b)(2)c.
h.	OAC rule 3745-18-06(E)	See b)(2)e.
i.	40 CFR 63.1-15 [CFR 63.1380(d)]	Table 1 of Subpart NNN of 40 CFR Part 63 – Applicability of General Provisions to Subpart NNN shows which parts of the general provisions in 40 CFR 63.1 -15 apply.

(2) Additional Terms and Conditions

a. For purposes of federal enforceability, all OC is considered to be VOC.

b. This emissions unit shall be vented to either the North or South HEAF units.

c. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[c)(1), d)(1), e)(1)]

The emission limitations and control requirements from the amended 21-07 rule, and the associated operational restrictions and the monitoring, record keeping, and reporting requirements contained in this permit, shall become federally enforceable on the date the U.S. EPA approves the revised OAC rule 3745-21-07 as a revision to the Ohio State Implementation Plan. The following terms shall become federally enforceable after U.S. EPA approves the rule revision:

[c)(2), d(2), e)(2)]

d. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

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.

e. 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).

c) Operational Restrictions

(1) The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01, is prohibited.

[Authority for term: OAC rules 3745-77-07(A)(1), 3745-21-07(G) and PTI 03-03282]

(2) The use of any liquid organic material or substance containing liquid organic material with a volatile content greater than twenty percent, by volume, is prohibited.

[Authority for term: OAC rules 3745-77-07(A)(1) and 3745-21-07(M)]

(3) The permittee must initiate corrective action within 1 hour when the monitored process parameter level(s) is outside the limit(s) established during the performance test as specified in 40 CFR 63.1384 for the process modification(s) used to control formaldehyde emissions and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(4) The permittee must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR Part 64, Subpart D when the process parameter(s) is outside the limits(s) established during the performance test as specified in 40 CFR 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(5) The permittee must 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 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(6) 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).

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(7) 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

d) Monitoring and/or Recordkeeping Requirements

(1) 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 photo-chemically reactive material, as applied.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-03282]

(2) 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; and

b. the liquid organic portion of said volatile content, in percent by volume as applied.

[Authority for term: OAC rules 3745-77-07(C)(1) and 3745-21-07(M)]

(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.

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.

[Authority for term: OAC rules 3745-77-07(C)(1)]

(4) Notwithstanding the frequency of the monitoring and record keeping requirements specified in d)(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 d)(2).

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

[Authority for term: OAC rules 3745-77-07(C)(1)]

(5) The permittee shall establish a correlation between formaldehyde emissions and a process parameter(s) to be monitored.

[Authority for term: OAC rules 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(6) The permittee shall monitor the established parameter(s) according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rules 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(7) 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.

[Authority for term: OAC rules 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(8) The permittee shall monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation of binder.

[Authority for term: OAC rules 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(9) The permittee shall monitor and record the formulation of each batch of binder used.

[Authority for term: OAC rules 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(10) 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.

[Authority for term: OAC rules 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(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.

[Authority for term: OAC rules 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(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).

[Authority for term: OAC rules 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(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 commonly available and EPA-compatible computer software.

[Authority for term: OAC rules 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(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.

[Authority for term: OAC rules 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(15) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirement is as stringent as or more stringent than the monitoring and record keeping requirement contained in Permit to Install #03-03282, issued on November 16, 2000: **d)(3) and d)(4)**. The monitoring and record keeping requirements contained in the above-referenced Permit-to-Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii)]

e) Reporting Requirements

(1) 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-03282]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a non-complying material [as specified in c)(2)] was employed in this emissions unit. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term OAC rules 3745-77-07(C)(1) and OAC rule 3745-21-07(M)]

(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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) 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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirement is as stringent as or more stringent than the reporting requirements contained in Permit to Install #03-03282, issued on November 16, 2000: **e)(3)**. The reporting requirements contained in the above-referenced Permit-to-Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation:</u>

PE shall not exceed 1.42 lbs/hr and 6.22 tpy.

<u>Applicable Compliance Method:</u>

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

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].

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-03282]

b. Emission Limitations:

NOx emissions shall not exceed 1.16 lbs/hr and 5.1 tpy.

Applicable Compliance Method:

If required, 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].

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-03282]

c. Emission Limitations:

CO emissions shall not exceed 1.87 lbs/hr and 8.2 tpy.

Applicable Compliance Method:

If required, 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].

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-03282]

d. Emission Limitations:

OC emissions shall not exceed 2.99 lbs/hr and 13.1 tpy.

Applicable Compliance Method:

If required, 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].

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-03282]

e. Emission Limitations:

SO2 emissions shall not exceed 1.52 lbs/hr and 6.7 tpy.

Applicable Compliance Method:

If required, 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].

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-03282]

f. Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in the operation, maintenance and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

g. 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).

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(1)]

(2) Unless disapproved by the Director, the permittee 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 test without first conducting performance tests. Such runs must not exceed 1 week in duration unless the Director approves a longer period. The permittee must 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 must inform the permittee of a decision to disapprove or must request additional information prior to the date of the

short-term experimental production runs. Notification of the intent to perform and experimental short-term production runt 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

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

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

g) Miscellaneous Requirements

(1) 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.

[Authority for term: OAC rules 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) The written operations, maintenance and monitoring plan required by 40 CFR 63.1383(a) has been submitted and approved by the Administrator. This plan shall be updated if the control device and/or process operating parameters measured during the initial performance are modified in accordance with g)(1) above.

[Authority for term: OAC rule 3745-77-07(C)(1)]

22. P326, Line 21 - Fiberglass Pipe Grinding, Trimming, & Slitting

Operations, Property and/or Equipment Description:

This process grinds, trims, and slits the cured pipe insulation to proper final product specifications.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 03-03282, issued November 16, 2000)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). Particulate emissions (PE) shall not exceed 1.0 pound per hour (lb/hr) and 4.40 tons per year (tpy).
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.
c.	OAC rule 3745-17-11(B)(1)	See b)(2)b.

(2) Additional Terms and Conditions

a. The emissions from this emissions unit shall be vented to a baghouse at all times the emissions unit is in operation.

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).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirement is as stringent as or more stringent than the monitoring and record

keeping requirement contained in Permit to Install #03-03282, issued on November 16, 2000: **d)(2)**. The monitoring and record keeping requirements contained in the above-referenced Permit-to-Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

[OAC rule 3745-77-07(A)(3)(a)(ii)]

(2) 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.

[Authority for term: OAC rule 3745-77-01(C)(1); PTI 03-03282]

(3) Notwithstanding the frequency of reporting requirements specified in d)(2), 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 abnormal visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in d)(2).

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

[Authority for term: OAC rule 3745-77-01(C)(1); PTI 03-03282]

e) Reporting Requirements

(1) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirement is as stringent as or more stringent than the reporting requirements contained in Permit to Install #03-03282, issued on November 16, 2000: **e)(2)**. The reporting requirements contained in the above-referenced Permit-to-Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii)]

(2) The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving 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.

[Authority for term: OAC rule 3745-15-03(B)(1)(a); OAC rule 3745-15-03(C); OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

PE shall not exceed 1.0 lb/hr and 4.40 tpy.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the lb/hr based upon the results of stack testing conduced in accordance with Methods 1-5 of 40 CFR Part 60, Appendix A.

The annual limitation was developed by multiplying the hourly limitation by 8760 hours per year and then dividing by 2000 pounds per ton. Therefore, compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-03282]

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).

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-07(B)(1)]

g) Miscellaneous Requirements

(1) None.

23. P327, Line 21 Fiberglass Pipe Sear Roll

Operations, Property and/or Equipment Description:

The Sear Roll thermally sets the exterior of the uncured pipe insulation before entering the curing oven.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 03-03282, issued November 16, 2000)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(1), 3745-18-06(E), 3745-21-07(G) and 40 CFR Part 63 Subpart NNN. Particulate emissions (PE) shall not exceed 0.75 pound per hour (lb/hr) and 3.3 tons per year (tpy). Sulfur dioxide (SO2) emissions shall not exceed 0.15 lb/hr and 0.7 tpy. Nitrogen oxide (NOX) emissions shall not exceed 0.12 lb/hr and 0.5 tpy. Carbon monoxide (CO) emissions shall not exceed 0.19 lb/hr and 0.8 tpy. Organic compound (OC) emissions shall not exceed 0.31 lb/hr and 1.4 tpy OC [See b)(2)a.]
b.	OAC rule 3745-17-11(B)(1)	See b)(2)b.
b.	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
c.	40 CFR Part 63 Subpart NNN [40 CFR 63.1380-1399]	The permittee shall not discharge or cause to be discharged into the

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	[In accordance with 40 CFR 63.1380(b)(3), this emissions unit is an existing flame attenuation wool fiberglass manufacturing line producing a bonded pipe product.]	atmosphere in excess of 3.4 kg of formaldehyde per mega gram (6.8 lb of formaldehyde per ton) of glass pulled.
d.	OAC rule 3745-21-07(G)	See b)(2)c. and c)(1).
e.	OAC rule 3745-21-07(M)(4)	See b)(2)d.
f.	40 CFR 63.1-15 [CFR 63.1380(d)]	Table 1 of Subpart NNN of 40 CFR Part 63 – Applicability of General Provisions to Subpart NNN shows which parts of the general provisions in 40 CFR 63.1 -15 apply.

(2) Additional Terms and Conditions

a. For purposes of federally enforceability, all OC is considered to be VOC.

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).

c. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[c)(1), d)(1) and e)(1)]

The emission limitations and control requirements from the amended 21-07 rule, and the associated operational restrictions and the monitoring, record keeping, and reporting requirements contained in this permit, shall become federally enforceable on the date the U.S. EPA approves the revised OAC rule 3745-21-07 as a revision to the Ohio State Implementation Plan. The following terms shall become federally enforceable after U.S. EPA approves the rule revision:

[c)(2), d)(2) and e)(2)]

d. This emissions unit is exempt from the requirements of OAC rule 3745-21-07(M)(4) pursuant to OAC rule 3745-21-07(M)(5)(d)(ii).

c) Operational Restrictions

(1) The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01, is prohibited.

[Authority for term: OAC rules 3745-77-01(A)(1), 3745-21-07(G) and PTI 03-03282]

(2) The use of any liquid organic material or substance containing liquid organic material with a volatile content greater than twenty percent, by volume, is prohibited.

[Authority for term: OAC rules 3745-77-07(A)(1) and 3745-21-07(M)]

(3) The permittee must initiate corrective action within 1 hour when the monitored process parameter level(s) is outside the limit(s) established during the performance test as specified in 40 CFR 63.1384 for the process modification(s) used to control formaldehyde emissions and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(4) The permittee must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR Part 64, Subpart D when the process parameter(s) is outside the limits(s) established during the performance test as specified in 40 CFR 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(5) The permittee must 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 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(6) 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).

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(7) 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 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

d) Monitoring and/or Recordkeeping Requirements

(1) 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.

[Authority for term: OAC rule 3745-77-01(C)(1), OAC rule 3745-21-07(G) and PTI 03-03282]

(2) The permittee shall collect and record the following information each month:

a. The volatile content (including water) of each material, as employed; and

b. The liquid organic portion of said volatile content, in percent by volume, as applied.

[Authority for term: OAC rule 3745-77-01(C)(1) and OAC rule 3745-21-07(M)]

(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.

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.

[Authority for term: OAC rule 3745-77-01(C)(1)]

(4) Notwithstanding the frequency of reporting requirements specified in e)(2), 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 d)(2).

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

[Authority for term: OAC rule 3745-77-01(C)(1)]

(5) The permittee shall establish a correlation between formaldehyde emissions and a process parameter(s) to be monitored.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(6) The permittee shall monitor the established parameter(s) according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(7) 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 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 63.1386, to show that the process parameter value(s) established during the performance test is not exceeded.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(8) The permittee shall monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation of binder.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(9) The permittee shall monitor and record the formulation of each batch binder used.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(10) 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.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(11) The permittee shall develop and implement a written plan as described in 40 CFR 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 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.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(12) The permittee shall also keep records of each event as required by 40 CFR 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 63.10(e)(3)(iv).

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(13) As required by 40 CFR 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 in microfiche.

c. The permitee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(14) In addition to the general records required by 40 CFR 63.10(b)(2), the permittee shall maintain records of the following information:

a. The formulation of each binder batch, the LOI and density for each product manufactured on this flame attenuation line and the free formaldehyde content of each resin shipment received and used in the binder formulation.

b. The process parameter level(s) of flame attenuation manufacturing lines that use process modifications to comply with the emission limits, including any periods

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.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(15) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirement is as stringent as or more stringent than the monitoring and record keeping requirement contained in Permit to Install #03-03282, issued on November 16, 2000: **d)(3) and d)(4)**. The monitoring and record keeping requirements contained in the above-referenced Permit-to-Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii)]

e) Reporting Requirements

(1) 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.

These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-03282]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a non-complying material [as specified in c)(2)] was employed. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(M)]

(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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) As required by 40 CFR 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 63.10(c) as well as the additional records required by record keeping requirement d)(13) and d)(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.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(5) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirement is as stringent as or more stringent than the reporting requirements contained in Permit to Install #03-03282, issued on November 16, 2000: **e)(3)**. The reporting requirements contained in the above-referenced Permit-to-Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii)]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitation:</u>

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

<u>Applicable Compliance Method:</u>

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).

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(1)]

b. <u>Emission Limitations:</u>

PE shall not exceed 0.75 lb/hr and 3.30 tpy.

<u>Applicable Compliance Method:</u>

If required, compliance with the hourly emission limitation based upon the results of the stack testing conducted in accordance with Methods 1-5 of 40 CFR Part 60, Appendix A.

The annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation (8760) and dividing by

2000]. Therefore, compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation is maintained.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-03282]

c. Emission Limitations:

NOx emissions shall not exceed 0.12 lb/hr and 0.5 tpy.

Applicable Compliance Method:

If required, compliance with the hourly emission limitation based upon the results of the stack testing conducted in accordance with Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.

The annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation (8760) and dividing by 2000]. Therefore, compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation is maintained.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-03282]

d. Emission Limitations:

CO emissions shall not exceed 0.19 lb/hr and 0.8 tpy.

Applicable Compliance Method:

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

The annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation (8760) and dividing by 2000]. Therefore, compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation is maintained.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-03282]

e. Emission Limitations:

OC emissions shall not exceed 0.31 lb/hr and 1.40 tpy.

Applicable Compliance Method:

If required, compliance with the hourly emission limitation based upon the results of the stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation (8760) and dividing by 2000]. Therefore, compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation is maintained.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-03282]

f. Emission Limitations:

SO2 emissions shall not exceed 1.52 lbs/hr and 6.70 tpy.

Applicable Compliance Method:

If required, compliance with the hourly emission limitation based upon the results of the stack testing conducted in accordance with Methods 1-4 and 6, of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation is maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation (8760) and dividing by 2000].

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-03282]

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 mega gram (6.8 lbs of formaldehyde per ton) of glass pulled.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in the operation, maintenance and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) Unless disapproved by the Director, the permittee 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 test without first conducting performance tests. Such runs must not exceed 1 week in duration unless the Director approves a longer period. The permittee must 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 must inform the permittee of a decision to disapprove or must request additional information prior to the date of the short-term experimental production runs. Notification of the intent to perform and experimental short-term production runt 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

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

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

g) Miscellaneous Requirements

(1) 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 63.1382. The owner or operator shall conduct all additional performance tests according to the procedures in 40 CFR 63.6(e)(3), Subpart A and in 40 CFR 63.1384.

[Authority for term: OAC rules 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) The written operations, maintenance and monitoring plan required by 40 CFR 63.1383(a) has been submitted and approved by the Administrator. This plan shall be updated if the control device and/or process operating parameters measured during the initial performance are modified in accordance with g)(1) above.

[Authority for term: OAC rule 3745-77-07(C)(1)]

24. P801, Process Water Treatment Pond

Operations, Property and/or Equipment Description:

Process water treatment

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 03-13993, issued May 17, 2007)	Fugitive volatile organic compounds (VOC) shall not exceed 18.61 tons per year (tpy).
b.	OAC rule 3745-21-07(D)	None [See b)(2)a. and b)(2)b.].

(2) Additional Terms and Conditions

a. The process water stored is not a volatile photochemically reactive material as defined in OAC rule 3745-21-01(C)(7). Therefore, there are no applicable requirements established by this rule.

b. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 provisions still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall conduct quarterly sampling and testing to determine the individual concentrations, in % by weight, of phenol, formaldehyde and methanol in the process water stored.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-13993]

(2) Each quarter, the permittee shall calculate the tons of fugitive VOC emissions based on the quarterly testing results.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-13993]

(3) The permittee shall calculate the annual fugitive VOC's emissions based upon the summation of the last four quarterly VOC results.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-13993]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedances of the annual VOC limit. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-13993]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of the terms and conditions of this permit shall be determined in accordance with the following methods:

a. Emission Limitation:

Fugitive VOC shall not exceed 18.61 tpy.

Applicable Compliance Method:

The emission limitation was established in accordance with the company supplied calculations based on an average phenol, formaldehyde, and methanol concentrations, by weight, a maximum water surface area of 105,025 ft^2 and a maximum operating schedule of 8760 hours per year. Compliance shall be demonstrated by the monitoring and record keeping requirements specified in d) of these terms and conditions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-13993]

g) Miscellaneous Requirements

(1) None.

25. Emissions Unit Group - Electric Melters PTI 03-16294: P061, P062, P063,

EU ID	Operations, Property and/or Equipment Description
P061	Electric Melter #1
P062	Electric Melter #2
P063	Electric Melter #3

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 03-16294, issued July 6, 2006)	The requirements of this rule also include compliance with the requirements of 40 CFR Part 63 Subpart NNN. Particulate emissions (PE) shall not exceed 0.34 pound per hour (lb/hr) and 1.49 tons per year (tpy) PE [See b)(2)b.] Visible PE from the stack(s) servicing this emissions unit shall not exceed 5% opacity as a six-minute average. Sulfur dioxide (SO2) emissions shall not exceed 0.45 lb/hr and 1.97 tpy. Carbon monoxide (CO) emissions shall not exceed 0.89 lb/hr and 3.90 tpy. See b)(2)a.
b.	40 CFR Part 63 Subpart NNN [40 CFR 63.1380 – 1399] In accordance with 40 CFR 63.1380(b)(1), this emissions unit is a new glass melting furnace located at a wool fiberglass manufacturing facility.]	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 mega gram (Mg) (0.5 lb of PM per ton) of glass pulled.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-07(A)	See b)(2)c.
d.	OAC rule 3745-17-11(B)	See b)(2)c.
e.	OAC rule 3745-18-06(E)	See b)(2)c.
f.	40 CFR 63.1 – 15 [40 CFR 63.1380(d)]	Table 1 of Subpart NNN of 40 CFR Part 63 – Applicability of General Provisions to Subpart NNN shows which parts of the general provisions in 40 CFR 63.1 -15 apply.

(2) Additional Terms and Conditions

a. The "Best Available Technology" (BAT) requirement for this emissions unit has been determined to be the use of a baghouse (melter dust collector) with an overall control efficiency of 99%.

b. All PE is assumed to be in the form of particulate matter less than 10 microns in size (PM10).

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

c) Operational Restrictions

(1) In order to maintain compliance with the applicable emission limitations(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0 to 10.0 inches of water.

[Authority for term: OAC rule 3745-77-07(A)(1)]

(2) The permittee must 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(3) The permittee must 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(4) The permittee must initiate corrective action within 1 hour when the average glass pull rate of any 4-hour block period for glass melting furnaces equipped with continuous glass pull rate monitors exceeds the average glass pull rate established during the performance test as specified in 40 CFR 63.1384, by greater than 20 percent and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(5) The permittee must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the glass pull rate exceeds, 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 5 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(6) The permittee must 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall install, calibrate, maintain, and continuously operate a bag leak detection system according to the following requirements:

a. The bag leak detection system must 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 must produce output of relative PM emissions.

c. The bag leak detection system must 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 must 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 must be installed in each baghouse compartment or cell. If a negative pressure or induced air baghouse is used, the bag leak detection system must 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 owner or operator 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 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(2) The operations, maintenance, and monitoring plan required by paragraph III.1. must specify corrective actions to be followed in the event of a bag leak detection system alarm. Example corrective actions that may be included in the plan include the following:

a. Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other conditions that may cause an increase in emissions.

b. Sealing off defective bags or filter media.

c. Replacing defective bags or filter media, or otherwise repairing the control device.

d. Sealing off a defective baghouse compartment.

e. Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.

f. Shutting down the process producing the particulate emissions.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(3) The permittee must install, calibrate, and maintain a continuous glass pull rate monitor that monitors and records on an hourly basis the glass pull rate.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(4) The permittee shall develop and implement a written plan as described in 40 CFR 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 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(5) The permittee shall also keep records of each event as required by 40 CFR 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 63.10(e)(3)(iv).

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(6) As required by 40 CFR 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 owner or operator must 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 must be retained at the facility. The remaining 3 years of records may be retained off site;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche; and

c. The owner or operator may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(7) In addition to the general records required by 40 CFR 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. 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(8) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on once-per-shift basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the

range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit(s):

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in “a” (above) where a prompt investigation was not conducted;

d. each incident of deviation described in “a” where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in “a” where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-15-03(B)(1)(a); OAC rule 3745-15-03(C); OAC rule 3745-77-07(C)(1); 40 CFR Part 64.9(a)].

(2) As required by 40 CFR 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 63.10(c) of this part as well as the additional records required by the recordkeeping requirements of paragraph d)(8) and d)(9) of this section. When no deviations have occurred, the owner or operator shall submit a report stating that no excess emissions occurred during the reporting period.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:

PE shall not exceed 0.34 lb/hr and 1.49 tpy.

Applicable Compliance Method:

The hourly allowable PE limitation was established by multiplying the maximum process weight rate (lb/hr) [as indicated in the permit application] by a controlled emission factor (lb/lb of glass] derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable PE limitation by testing in accordance with Methods 1-5 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

b. Emission Limitations:

CO emissions shall not exceed 0.89 lb/hr and 3.90 tpy.

Applicable Compliance Method:

The hourly allowable CO emission limitation was established by multiplying the maximum process weight rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass] derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable CO emission limitation by testing in accordance with Methods 1-4 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

c. Emission Limitations:

SO2 emissions shall not exceed 0.45 lb/hr and 1.97 tpy.

Applicable Compliance Method:

The hourly allowable SO2 emission limitation was established by multiplying the maximum process weight rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable SO2 emission limitation by testing in accordance with Method 1-4 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

d. Emission Limitation:

PM shall not exceed 0.5 lb per ton of glass pulled.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in the operation, maintenance and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

e. Emission Limitation:

Visible PE from the stack(s) servicing this emissions unit shall not exceed 5% opacity, as a six-minute average

Applicable Compliance Method:

If required, compliance with the visible emission limitation for the baghouse stack shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-07(B); PTI 03-16294]

(2) Unless disapproved by the Director, the permittee 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 test without first conducting performance tests. Such runs must not exceed 1 week in duration unless the Director approves a longer period. The permittee must 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 must inform the permittee of a decision to disapprove or must request additional information prior to the date of the short-term experimental production runs. Notification of the intent to perform and experimental short-term production runt 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

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

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

g) Miscellaneous Requirements

(1) For all control device and 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 permittee shall conduct all additional performance tests according to the procedures 40 CFR part 63, subpart A and in 40 CFR part 63.1384.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) The written operations, maintenance and monitoring plan required by 40 CFR 63.1383(a) has been submitted and approved by the Administrator. This plan shall be updated if the control device and/or process operating parameters measured during the initial performance are modified in accordance with g)(1) above.

[Authority for term: OAC rule 3745-77-07(C)(1)]

26. Emissions Unit Group - Forming & Collection (No PTI): P001, P310 , P013

EU ID	Operations, Property and/or Equipment Description
P001	Unit 81 – Forming and Collection
P310	Unit 25 – Forming and Collection
P013	Unit 84 – Forming and Collection

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-11(B)(1)	See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from the stacks servicing these emissions units shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
c.	OAC rule 3745-21-07(G)	See b)(2)b. and b)(2)c.

(2) Additional Terms and Conditions

a. PE from these emissions units shall be less than 10 pounds per hour (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 accept the PE limitation stated above (less than 10 lbs/hr).

b. This emissions unit is located in Defiance County, which is not a “Priority I” county as indicated in paragraph (A) of OAC rule 3745-21-06 and was installed prior to February 15, 1972. Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).

c. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 provisions still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform checks at least five (5) days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the 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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) Notwithstanding the frequency of reporting requirements specified in e)(1), the permittee may reduce the frequency of visual observations from at least five (5) days per week to weekly readings for this emissions unit 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 d)(1).

c. The permittee shall revert to readings of five (5) days per week if any abnormal visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive dust emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous six-month periods.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitation:</u>

PE shall be less than 10.0 lbs/hr

<u>Applicable Compliance Method:</u>

If required, compliance shall be based on the results of stack testing conducted pursuant to the methods in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(10)]

b. <u>Emission Limitation:</u>

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

<u>Applicable Compliance Method:</u>

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).

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(1)]

g) Miscellaneous Requirements

(1) None.

27. Emissions Unit Group – Unit 89 Collection Modules A,B,C PTI 03-10931: P048, P049, P050

EU ID	Operations, Property and/or Equipment Description
P048	Unit 89 Collection Module A
P049	Unit 89 Collection Module B
P050	Unit 89 Collection Module C

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI 03-10931, issued December 6, 2001)	Particulate emissions (PE) shall not exceed 66.80 tons per rolling, 365-day period. [See b)(2)a.]
b.	OAC rule 3745-31-05(A)(3) (PTI 03-10931, issued December 6, 2001)	The requirements of this rule also include compliance with the requirements of 40 CFR, Part 60 Subpart PPP, 40 CFR, Part 63 Subpart NNN, OAC rule 3745-31-05(D), OAC rule 3745-21-07(G) and OAC rule 3745-17-07(A). <u>PE shall not exceed</u>: For P048, 9.99 pounds per hour (lbs/hr) and 42.96 tons per year (TPY); For P049, 9.02 lbs/hr and 38.79 TPY; and For P050, 7.76 lbs/hr and 33.37 TPY. [See b)(2)b.] <u>For all units individually:</u> Nitrogen oxide (NOx) emissions shall not exceed 1.93 lbs/hr and 8.30 TPY. Organic compound (OC) emissions shall not exceed 1.66 lbs/hr and 7.14 TPY.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Carbon monoxide (CO) emissions shall not exceed 9.10 lbs/hr and 39.13 TPY. Formaldehyde emissions shall not exceed 0.80 lb/hr and 3.44 TPY. Sulfur dioxide (SO2) emissions shall not exceed 1.0 lbs/hr, 4.30 tons SO2/yr
c.	40 CFR Part 63 Subpart NNN [40 CFR 63.1380 – 1399] [In accordance with 40 CFR 63.1380(b)(2), this emissions unit is an existing rotary spin wool fiberglass manufacturing line producing a bonded wool fiberglass building insulation product.]	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 0.6 kg of formaldehyde per mega gram (1.2 lb of formaldehyde per ton) of glass pulled from each existing rotary spin manufacturing line.
d.	40 CFR Part 60, Subpart PPP [40 CFR 60.680-685] [In accordance with 40 CFR 60.680, this emissions unit is a rotary spin wool fiberglass manufacturing line that commenced construction, modification or reconstruction after February 7, 1984.]	The permittee shall not cause to be discharged into the atmosphere from this emissions unit any gases which contain PE in excess of 5.5 kg/Mg (11.0 lbs/ton) of glass pulled.
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.
f.	OAC rule 3745-17-11(B)	See b)(2)d.
g.	OAC rule 3745-21-07(G)	See b)(2)e. and c)(2).
h.	40 CFR 63.1 – 15 [40 CFR 63.1380(d)]	Table 1 of Subpart NNN of 40 CFR Part 63 – Applicability of General Provisions to Subpart NNN shows which parts of the general provisions in 40 CFR 63.1 -15 apply.

(1) Additional Terms and Conditions

a. The permittee has requested a federally enforceable restriction of 66.80 tons PE per rolling, 365-day period for purposes of avoiding PSD.

The combined annual PE from Line 89, which includes emissions units P047, P048, P049, P050, P051, P052, P054 and P055, shall not exceed 66.80 tons, based upon a rolling, 365-day summation of emissions.

b. The "Best Available Technology" (BAT) requirement for this emissions unit has been determined to be the use of a venturi scrubber.

c. All PE is assumed to be in the form of PM10.

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

e. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[c)(2), d)(6), e)(4)]

c) Operational Restrictions

(1) The maximum annual number of operating hours for this emissions unit shall not exceed 8600, based upon a rolling, 12-month summation of the monthly numbers of operating hours.

[Authority for term: OAC rule 3745-77-07(A)(1); PTI 03-10931]

(2) The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01(C)(5), is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); PTI 03-10931]

(3) The permittee must initiate corrective action within 1 hour when the average pressure drop, liquid flow rate, or chemical feed rate for any 3-hour block period is outside the limits established during the performance tests as specified in 40 CFR 63.1384 for each wet scrubbing control device and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part Subpart NNN]

(4) The permitee must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when any scrubber parameter is outside the limit(s) established during the performance test as specified in 40 CFR 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part Subpart NNN]

(5) The permittee must operate each scrubber such that each monitored 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part Subpart NNN]

(6) The permittee must 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part Subpart NNN]

(7) The permittee must 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 63.1384. 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee must operate each scrubber such that each monitored parameter is not outside the limit(s) established during the performance test as specifed in 40 CFR 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

(2) The shall install, calibrate, maintain, and operate monitoring devices that continuously monitor and record the gas pressure drop across each scrubber and scrubbing liquid flow rate to each scrubber according to the procedures in the operations, maintenance, and monitoring plan. The pressure drop monitor is to be certified by its manufacturer to be accurate within 250 Pascal (1 inch water gauge) over its operating range, and the flow rate monitor is to be certified by its manufacturer to be accurate within 5 percent over its operating range. The permittee must also continuously monitor and record the feed rate of any chemical(s) added to the scrubbing liquid. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; 40 CFR Part 63 Subpart PPP; PTI 03-10931]

(3) Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date the corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop and flow rate readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

These range(s) and/or limit(s) for the pressure drop and liquid flow rate are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop or liquid flow rate based upon information obtained during future performance tests that demonstrate compliance with the allowable particulate emission rate for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) All monitoring devices required under 40 CFR, Part 60, Subpart PPP shall be recalibrated quarterly in accordance with procedures under section 60.13(b).

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 60 Subpart PPP; PTI 03-10931]

(5) The permittee shall maintain monthly records of the following information:

a. the operating hours for each month; and

b. the rolling, 12-month summation of the operating hours.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

(6) The permittee shall maintain the following daily records for this emissions unit:

a. the company identification for each product group manufactured;

b. the numbers of hours of production for each product group manufactured;

c. the calculated PE factor (lbs PE/hour of production), based upon the emission factor curve*, for each product group manufactured; and

d. the total PE rate (lbs/day), for all the product groups manufactured [summation of (c x b) for all product groups].

* The permittee calculates the hourly PE by employing a pac factor. The pack factor is the design density of each product produced multiplied by the design thickness of the same product. This resultant value is used to figure out the PE (lbs/hr) from the emission factor curve. The emission factor curve is a statistical polynomial and was derived from multiple stack tests on this emissions unit. The hourly PE calculated from the polynomial is then multiplied by the number of hours of production of the product for which the pack factor was calculated.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

(7) The permittee shall calculate and maintain daily records of the particulate emissions and the rolling 365-day emissions of particulates, in tons, for emissions units P047, P048, P049, P048, P049, P050, P051, P052, P054 and P055, combined.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

(8) The permittee shall maintain records of the following information each month 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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

(9) The permittee must monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation of binder.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(10) The permittee must monitor and record the formulation of each batch of binder used.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(11) The permittee must monitor and record at least once every 8 hours, the product Loss on Ignition (LOI) and product density of each bonded wool fiberglass product manufactured.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(12) 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part Subpart NNN]

(13) The permittee shall 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).

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Subpart NNN]

(14) 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 must 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 must 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(15) 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 rotary spin 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. Scrubber pressure drop, scrubbing liquid flow rate, and any chemical additive (including chemical feed rate to the scrubber), including any period when a

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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubber and/or the liquid flow rate was/were outside of the appropriate range or exceeded the applicable limit contained in this permit;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;

c. each incident of deviation described in “a” or “b” (above) where a prompt investigation was not conducted;

d. each incident of deviation described in “a” or “b” where prompt corrective action, that would bring the pressure drop and/or liquid flow rate into compliance with the acceptable range, was determined to be necessary and was not taken;

e. each incident of deviation described in “a” or “b” where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

f. all exceedances of the rolling, 12-month hours of operation restriction of 8600;

g. all exceedances of the rolling, 365-day PE limitation of 68.8 tons (for emissions units P047, P048, P049, P050, P051, P052, P054 and P055, combined); and

h. each month during which a photochemically reactive material was employed.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

(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 40 CFR part 63.1386(d). When no deviations have occurred, the permittee shall submit a report stating that no excess emissions occurred during the reporting period.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of the terms and conditions of this permit shall be determined in accordance with the following methods:

a. Emission Limitation:

66.80 tons PE per rolling, 365-day period (for emissions units P047, P048, P049, P050, P051, P052, P054 and P055, combined)

Applicable Compliance Method:

Compliance with the rolling, 365-day PE limitation shall be demonstrated by the record keeping requirements specified in d)(4) and d)(5) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

b. Emission Limitations:

PE for emissions unit P048 shall not exceed 9.99 lbs/hr and 42.96 tpy.

PE for emissions unit P049 shall not exceed 9.02 lbs/hr and 38.79 tpy.

PE for emissions unit P050 shall not exceed 7.76 lbs/hr and 33.37 tpy.

Applicable Compliance Method:

Compliance with the hourly emission limitations were demonstrated based on stack testing conducted in accordance with Methods 1 through 5 of 40 CFR, Part 60, Appendix A. If required, additional testing shall be conducted at the discretion of the agency.

The annual emission limitations were developed by multiplying the hourly emission limitations by 8600, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitations and the restriction on the annual number of hours of operation of 8600, compliance shall also be shown with the annual limitations.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

c. Emission Limitations:

OC emissions shall not exceed 1.66 lbs/hr and 7.14 tpy.

Applicable Compliance Method:

If required, compliance shall be demonstrated by stack testing conducted in accordance with Methods 1-4 and 18, 25 or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

The annual emission limitation was developed by multiplying the hourly emission limitation by 8600, and then dividing by 2000. Therefore, provided compliance is

shown with the hourly limitation and the restriction on the annual number of hours of operation of 8600, compliance shall also be shown with the annual limitation.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

d. Emission Limitations:

NOx emissions shall not exceed 1.93 lbs/hr and 8.30 tpy.

Applicable Compliance Method:

If required, compliance shall be demonstrated by stack testing conducted with Methods 1 - 4 and 7E of 40 CFR, Part 60, Appendix A.

The annual emission limitation was developed by multiplying the hourly emission limitation by 8600, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation and the restriction on the annual number of hours of operation of 8600, compliance shall also be shown with the annual limitation.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

e. Emission Limitations:

CO emissions shall not exceed 9.10 lbs/hr and 39.13 tpy.

Applicable Compliance Method:

Compliance with the hourly emission limitation was demonstrated based on stack testing conducted in accordance with Methods 1 through 4 and 10 of 40 CFR, Part 60, Appendix A. If required, additional testing shall be conducted at the discretion of the agency.

The annual emission limitation was developed by multiplying the hourly emission limitation by 8600, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation and the restriction on the annual number of hours of operation of 8600, compliance shall also be shown with the annual limitation.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

f. Emission Limitations:

Formaldehyde emissions shall not exceed 0.80 lb/hr and 3.44 tpy.

Applicable Compliance Method:

If required, compliance shall be demonstrated by stack testing conducted in accordance with Method 316 or 318 of 40 CFR, Part 60, Appendix A.

The annual emission limitation was developed by multiplying the hourly emission limitation by 8600, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation and the restriction on the annual number of hours of operation of 8600, compliance shall also be shown with the annual limitation.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

g. Emission Limitations:

SO2 emissions shall not exceed 1.0 lb/hr and 4.30 tpy.

Applicable Compliance Method:

Compliance with the hourly emission limitation was demonstrated based on stack testing conducted in accordance with Methods 1 through 4 and 6 of 40 CFR, Part 60, Appendix A. If required, additional testing shall be conducted at the discretion of the agency.

The annual emission limitation was developed by multiplying the hourly emission limitation by 8600, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation and the restriction on the annual number of hours of operation of 8600, compliance shall also be shown with the annual limitation.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-10931]

h. Emission Limitations:

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).

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(1)]

i. Emission Limitations:

PE shall not exceed 11.0 lbs/ton of glass pulled (5.5 kg/Mg).

Applicable Compliance Method:

Compliance with the emission limitation was demonstrated based on stack testing conducted in accordance with Methods 1 through 5E of 40 CFR, Part 60, Appendix A. If required, additional testing shall be conducted at the discretion of the agency.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 60 Subpart PPP; PTI 03-10931]

j. Emission Limitation:

Formaldehyde emissions shall not exceed 1.2 lbs per ton of glass pulled.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in the operation, maintenance and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-10931]

(2) Unless disapproved by the Director, the permittee of a rotary spin 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 must not exceed 1 week in duration unless the Director approves a longer period. The permittee must 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 must inform the permittee of a decision to disapprove or must 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

g) Miscellaneous Requirements

(1) For all control device and 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 permittee shall conduct all additional performance tests according to the procedures 40 CFR part 63, subpart A and in 40 CFR part 63.1384.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) The written operations, maintenance and monitoring plan required by 40 CFR 63.1383(a) has been submitted and approved by the Administrator. This plan shall be

updated if the control device and/or process operating parameters measured during the initial performance are modified in accordance with g)(1) above.

[Authority for term: OAC rule 3745-77-07(C)(1)]

28. Emissions Unit Group - Glass Melting Furnaces #201&203: P303, P307,

EU ID	Operations, Property and/or Equipment Description
P303	Glass melting furnace unit 201
P307	Glass melting furnace unit 203.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-11(B)(1)	Particulate emissions (PE) shall not exceed 8.70 pounds per hour (lbs/hr). [See b)(2)a.]
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.
c.	OAC rule 3745-18-06(E)(2)	Sulfur dioxide (SO2) emissions shall not exceed 72.0 lbs/hr.
d.	40 CFR Part 63, Subpart NNN [40 CFR 63.1380-1399] [In accordance with 40 CFR 63.1380(b)(1), this emissions unit is an existing glass-melting furnace located at a wool fiberglass manufacturing facility.]	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 mega gram (Mg) (0.5 lb of PM per ton) of glass pulled.
e.	40 CFR 63.1-15 [CFR 63.1380(d)]	Table 1 of Subpart NNN of 40 CFR Part 63 – Applicability of General Provisions to Subpart NNN shows which parts of the general provisions in 40 CFR 63.1 -15 apply.

(2) Additional Terms and Conditions

a. Emissions unit P003 and P007 are subject to the "grouping" provisions of OAC rule 3745-17-11(A)(3). Therefore, the PE shall not exceed 8.70 lbs/hr from emissions units P003 and P007, combined.

c) 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(2) 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(3) 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 63.1384 and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(4) 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 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(5) 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 63.1384 for more than 10 percent of the total operating time in a six-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(6) The permittee must initiate corrective action within 1 hour when the average glass pull rate of any 4-hour block period for glass melting furnaces equipped with continuous glass pull rate monitors exceeds the average glass pull rate established during the performance test as specified in 40 CFR 63.1384, by greater than 20 percent and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(7) The permittee must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the glass pull rate exceeds, 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 5 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(8) The permittee must 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall prepare for each glass melting furnace subject to the provisions of 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 manufacturer's instructions; and

c. corrective actions to be taken when process parameters or add-on control device parameters deviate from the limit(s) established during initial performance tests.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(2) The permittee shall install, calibrate, maintain, and continuously operate a bag leak detection system according to the following requirements:

a. The bag leak detection system must 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 must produce output of relative PM emissions.

c. The bag leak detection system must 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 must 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 must be installed in each baghouse compartment or cell. If a negative pressure or induced air baghouse is used, the bag leak detection system must 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 owner or operator 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 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.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(3) The operations, maintenance, and monitoring plan shall specify corrective actions to be followed in the event of a bag leak detection system alarm. Example corrective actions that may be included in the plan include the following:

a. Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other conditions that may cause an increase in emissions.

b. Sealing off defective bags or filter media.

c. Replacing defective bags or filter media, or otherwise repairing the control device.

d. Sealing off a defective baghouse compartment.

e. Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.

f. Shutting down the process producing the particulate emissions.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(4) The permittee must install, calibrate, and maintain a continuous glass pull rate monitor that monitors and records on an hourly basis the glass pull rate.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(5) The permittee shall monitor the ESP according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(6) 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 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.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(7) For all control device and 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 63.1382. The owner or operator shall conduct all additional performance tests according to the procedures in this part 63, subpart A and in 40 CFR 63.1384.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(8) The permittee shall develop and implement a written plan as described in 40 CFR 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 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.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(9) The permittee shall also keep records of each event as required by 40 CFR 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 63.10(e)(3)(iv).

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(10) As required by 40 CFR 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 owner or operator must 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 must be retained at the facility. The remaining 3 years of records may be retained off site;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche; and

c. The owner or operator may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

(11) In addition to the general records required by 40 CFR 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. 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.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

e) Reporting Requirements

(1) As required by 40 CFR 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 63.10(c) of this part as well as the additional records required by the recordkeeping requirements of paragraph (d) of this section. When no deviations have occurred, the owner or operator shall submit a report stating that no excess emissions occurred during the reporting period.

[Authority for term: OAC rule 3745-77-01(C)(1); 40 CFR Part 63 Subpart NNN]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:

PE from emissions units P303 and P307, combined, shall not exceed 8.7 lbs/hr.

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(10)]

b. Emission Limitation:

SO2 emissions shall not exceed 72.0 lbs/hr.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation above by testing in accordance with Methods 1-4 and 6 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-18-06(E)]

c. Emission Limitation:

Visible PE from the stack(s) 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 methods specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-07(B)]

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 mega gram (Mg) (0.5 lb of PM per ton) of glass pulled.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in the Operation, Maintenance and Monitoring Plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) Unless disapproved by the Director, the permittee 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 test without first conducting performance tests. Such runs must not exceed 1 week in duration unless the Director approves a longer period. The permittee must 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 must inform the permittee of a decision to disapprove or must request additional information prior to the date of the short-term experimental production runs. Notification of the intent to perform and experimental short-term production runt 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

g) Miscellaneous Requirements

(1) None.

29. Emissions Unit Group - Pipe Collection A PTI 03-16294: P064, P067, P070, P073,

EU ID	Operations, Property and/or Equipment Description
P064	Forming and collection unit 801.
P067	Forming and collection unit 802.
P070	Forming and collection unit 803.
P073	Forming and collection unit 804.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 03-16294, issued July 6, 2006)	The requirements of this rule also include compliance with the requirements of 40 CFR Part 63 Subpart NNN, OAC rule 3745-17-07(A) and OAC rule 3745-21-07(G). Particulate emissions (PE) shall not exceed 2.69 pounds per hour (lbs/hr) and 11.78 tons per year (tpy). [See b)(2)a.] Carbon monoxide (CO) emissions shall not exceed 2.02 lbs/hr and 8.85 tpy. Organic compound (OC) emissions shall not exceed 0.83 lb/hr and 3.64 tpy. Sulfur dioxide (SO2) emissions shall not exceed 0.09 lb/hr and 0.39 tpy.
b.	OAC rule 3745-17-07(A)	Visible PE from the stack(s) servicing this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.
c.	40 CFR Part 63 Subpart NNN [40 CFR 63.1380-1399] [In accordance with 40 CFR	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 3.4 kg per mega gram (6.8 lbs for formaldehyde per ton) of

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	63.1380(b)(3), this emissions unit is a new flame attenuation wool fiberglass manufacturing line producing a bonded pipe product.]	glass pulled.
d.	OAC rule 3745-21-07(G)	See b)(2)c. and c)(1).
e.	OAC rule 3745-17-11(B)	See b)(2)b.
f.	OAC rule 3745-21-08(B)	See b)(2)d.
g.	OAC rule 3745-18-06(E)	See b)(2)b.
h.	40 CFR 63.1-15 [CFR 63.1380(d)]	Table 1 of Subpart NNN of 40 CFR Part 63 – Applicability of General Provisions to Subpart NNN shows which parts of the general provisions in 40 CFR 63.1 -15 apply.

(2) Additional Terms and Conditions

a. All PE is assumed to be in the form of particulate matter less than 10 microns in size (PM10).

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).

c. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[c)(1), d)(3) and e)(2)]

d. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

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.

c) Operational Restrictions

(1) The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01, is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(2) The permitee must initiate corrective action with 1 hour when the average pressure drop, liquid flow rate, or chemical feed rate for any 3-hour block period is outside the limits established during the performance test as specified in 40 CFR 63.1384 for each wet scrubbing control device and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(3) The permittee must implement a Quality Improvement Plan (QIP) consistent with the compliance assurance monitoring provisions of 40 CFR Part 64, Subpart D when any scrubber parameter is outside the limit(s) established during the performance test as specified in 40 CFR 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(4) The permittee must operate each scrubber such that each monitored parameter is not outside the limit(s) established during the performance test as specified in 40 CFR 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(5) The permittee must use a resin in the formulation 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).

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(6) The permittee must 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 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information for this emissions unit:

a. the company identification for each liquid organic material employed in this emissions unit; and

b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(2) The shall install, calibrate, maintain, and operate monitoring devices that continuously monitor and record the gas pressure drop across each scrubber and scrubbing liquid flow rate to each scrubber according to the procedures in the operations, maintenance, and monitoring plan. The pressure drop monitor is to be certified by its manufacturer to be accurate within 250 Pascal (1 inch water gauge) over its operating range, and the flow rate monitor is to be certified by its manufacturer to be accurate within 5 percent over its operating range. The permittee must also continuously monitor and record the feed rate of any chemical(s) added to the scrubbing liquid.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(3) The permittee must monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation binder.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(4) The permittee must monitor and record the formulation of each batch of binder used.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(5) The permittee must monitor and record at least once every 8 hours, the product LOI and product density of each bonded wool fiberglass product manufactured.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(6) The permittee shall develop and implement a written plan as described in 40 CFR 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 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 of minimize emissions.

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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(7) The permittee shall also keep records of each event as required by 40 CFR 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 63.10(e)(3)(iv).

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(8) As required by 40 CFR 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 must 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 must 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(9) In addition to the general records required by 40 CFR 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. Scrubber pressure drop, scrubbing liquid flow rate, and any chemical additive (including chemical feed rate to the scrubber), including any period when a 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(10) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirement is as stringent as or more stringent than the monitoring and record keeping requirement contained in Permit-to-Install #03-16294, issued on July 6, 2006: **d)(3), d)(7), d)(11)**. The monitoring and record keeping requirements contained in the above-referenced Permit-to-Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements

constitutes compliance with the underlying monitoring and record keeping requirements in the Permit-to-Install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a photo-chemically reactive material was employed. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(2) As required by 40 CFR 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 63.10(c) as well as the additional records required by the record keeping requirements of paragraph (d) of this section When no deviations have occurred, the permittee shall submit a report stating that no excess emissions occurred during the reporting period.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitations:</u>

PE shall not exceed 2.69 lbs/hr and 11.78 tpy.

<u>Applicable Compliance Method:</u>

The hourly allowable PE limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable PE limitation by testing in accordance with Methods 1-5 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

b. <u>Emission Limitations:</u>

CO emissions shall not exceed 2.02 lbs/hr and 8.85 tpy.

Applicable Compliance Method:

The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable CO emission limitation by testing in accordance with Methods 1-4 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

c. Emission Limitations:

OC emissions shall not exceed 0.83 lb/hr and 3.64 tpy.

Applicable Compliance Method:

The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable OC emission limitation by testing in accordance with Methods 1-4 and Method 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

d. Emission Limitations:

SO2 emissions shall not exceed 0.09 lb/hr and 0.39 tpy.

Applicable Compliance Method:

The hourly allowable SO2 emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass] derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable SO2 emission limitation by testing in accordance with Methods 1-4 and 6, 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

e. Emission Limitation:

Formaldehyde emissions shall not exceed 6.8 lbs per ton of glass pulled.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in the operation, maintenance and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

f. Emission Limitation:

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

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-11(B); PTI 03-16294]

(2) Unless disapproved by the Director, the 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 test without first conducting performance tests. Such runs must not exceed 1 week in duration unless the Director approves a longer period. The permittee must 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 must inform the permittee of a decision to disapprove or must request additional information prior to the date of the short-term experimental production runs. Notification of the intent to perform and experimental short-term production runt 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

g) Miscellaneous Requirements

(1) For all control device and 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 permittee shall conduct all additional performance tests according to the procedures 40 CFR part 63, subpart A and in 40 CFR part 63.1384.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) The written operations, maintenance and monitoring plan required by 40 CFR 63.1383(a) has been submitted and approved by the Administrator. This plan shall be updated if the control device and/or process operating parameters measured during the initial performance are modified in accordance with g)(1) above.

[Authority for term: OAC rule 3745-77-07(C)(1)]

30. Emissions Unit Group - Pipe Collection B PTI 03-16294: P076, P079,

EU ID	Operations, Property and/or Equipment Description
P076	Forming and collection unit 805.
P079	Forming and collection unit 806.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 03-16294, issued July 6, 2006)	The requirements of this rule also include compliance with the requirements of 40 CFR Part 63 Subpart NNN, OAC rule 3745-17-07(A) and OAC rule 3745-21-07(G). Particulate emissions (PE) shall not exceed 4.03 pounds per hour (lbs/hr) and 17.65 tons per year (tpy). [See b)(2)a.] Carbon monoxide (CO) emissions shall not exceed 2.02 lbs/hr and 8.85 tpy. Organic compound (OC) emissions shall not exceed 1.25 lbs/hr and 5.48 tpy. Sulfur dioxide (SO2) emissions shall not exceed 0.14 lb/hr and 0.61 tpy.
b.	OAC rule 3745-17-07(A)	Visible PE from the stack(s) servicing this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.
c.	40 CFR Part 63 Subpart NNN [40 CFR 63.1380-1399] [In accordance with 40 CFR 63.1380(b)(3), this emissions unit is	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 3.4 kg per mega gram (6.8 lbs for formaldehyde per ton) of glass pulled.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	a new flame attenuation wool fiberglass manufacturing line producing a bonded pipe product.]	
d.	OAC rule 3745-21-07(G)	See b)(2)c. and c)(1).
e.	OAC rule 3745-17-11(B)	See b)(2)b.
f.	OAC rule 3745-21-08(B)	See b)(2)c.
g.	OAC rule 3745-18-06(E)	See b)(2)b.
h.	40 CFR 63.1-15 [CFR 63.1380(d)]	Table 1 of Subpart NNN of 40 CFR Part 63 – Applicability of General Provisions to Subpart NNN shows which parts of the general provisions in 40 CFR 63.1 -15 apply.

(2) Additional Terms and Conditions

a. All PE is assumed to be in the form of particulate matter less than 10 microns in size (PM10).

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).

c. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[c)(1), d)(3) and e)(2)].

d. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

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.

c) Operational Restrictions

(1) The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01, is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(2) The permitee must initiate corrective action with 1 hour when the average pressure drop, liquid flow rate, or chemical feed rate for any 3-hour block period is outside the limits established during the performance test as specified in 40 CFR 63.1384 for each wet scrubbing control device and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

(3) The permittee must implement a Quality Improvement Plan (QIP) consistent with the compliance assurance monitoring provisions of 40 CFR Part 64, Subpart D when any scrubber parameter is outside the limit(s) established during the performance test as specified in 40 CFR 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(4) The permittee must operate each scrubber such that each monitored parameter is not outside the limit(s) established during the performance test as specified in 40 CFR 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN]

(5) The permittee must use a resin in the formulation 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).

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(6) The permittee must 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 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information for this emissions unit:

a. the company identification for each liquid organic material employed in this emissions unit; and

b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(2) The shall install, calibrate, maintain, and operate monitoring devices that continuously monitor and record the gas pressure drop across each scrubber and scrubbing liquid flow rate to each scrubber according to the procedures in the operations, maintenance, and monitoring plan. The pressure drop monitor is to be certified by its manufacturer to be accurate within 250 Pascal (1 inch water gauge) over its operating range, and the flow rate monitor is to be certified by its manufacturer to be accurate within 5 percent over its operating range. The permittee must also continuously monitor and record the feed rate of any chemical(s) added to the scrubbing liquid.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(3) The permittee must monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation binder.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(4) The permittee must monitor and record the formulation of each batch of binder used.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(5) The permittee must monitor and record at least once every 8 hours, the product LOI and product density of each bonded wool fiberglass product manufactured.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(6) The permittee shall develop and implement a written plan as described in 40 CFR 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 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 of minimize emissions.

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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(7) The permittee shall also keep records of each event as required by 40 CFR 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 63.10(e)(3)(iv).

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(8) As required by 40 CFR 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 must 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 must 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(9) In addition to the general records required by 40 CFR 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. Scrubber pressure drop, scrubbing liquid flow rate, and any chemical additive (including chemical feed rate to the scrubber), including any period when a 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(10) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirement is as stringent as or more stringent than the monitoring and record keeping requirement contained in Permit-to-Install #03-16294, issued on July 6, 2006: **d)(3), d)(7), d)(11)**. The monitoring and record keeping requirements contained in the above-referenced Permit-to-Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit-to-Install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a photochemically reactive material was employed. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-16294]

(2) As required by 40 CFR 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 63.10(c) as well as the additional records required by the record keeping requirements of d)(10) and d)(11) of this section. When no deviations have occurred, the permittee shall submit a report stating that no excess emissions occurred during the reporting period.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitations:</u>

PE shall not exceed 4.03 lbs/hr and 17.65 tpy.

<u>Applicable Compliance Method:</u>

The hourly allowable PE limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable PE limitation by testing in accordance with Methods 1-5 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

b. <u>Emission Limitations:</u>

CO emissions shall not exceed 2.02 lbs/hr and 8.85 tpy.

<u>Applicable Compliance Method:</u>

The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions

unit. If required, the permittee shall demonstrate compliance hourly allowable CO emission limitation by testing in accordance with Methods 1-4 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

c. Emission Limitations:

OC emissions shall not exceed 1.25 lbs/hr and 5.48 tpy.

Applicable Compliance Method:

The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable OC emission limitation by testing in accordance with Methods 1-4 and Method 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

d. Emission Limitations:

SO2 emissions shall not exceed 0.14 lb/hr and 0.61 tpy.

Applicable Compliance Method:

The hourly allowable SO2 emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass] derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable SO2 emission limitation by testing in accordance with Methods 1-4 and 6, 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

e. Emission Limitation:

Formaldehyde emissions shall not exceed 6.8 lbs per ton of glass pulled.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in the operation, maintenance and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

f. Emission Limitation:

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

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-07(B); PTI 03-16294]

(2) Unless disapproved by the Director, the 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 test without first conducting performance tests. Such runs must not exceed 1 week in duration unless the Director approves a longer period. The permittee must 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 must inform the permittee of a decision to disapprove or must request additional information prior to the date of the short-term experimental production runs. Notification of the intent to perform and experimental short-term production runt 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

g) Miscellaneous Requirements

(1) For all control device and 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 permittee shall conduct all additional performance tests according to the procedures 40 CFR part 63, subpart A and in 40 CFR part 63.1384.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) The written operations, maintenance and monitoring plan required by 40 CFR 63.1383(a) has been submitted and approved by the Administrator. This plan shall be updated if the control device and/or process operating parameters measured during the initial performance are modified in accordance with g)(1) above.

[Authority for term: OAC rule 3745-77-07(C)(1)]

31. Emissions Unit Group - Product Finishing A PTI 03-16294: P066, P069, P072, P075,

EU ID	Operations, Property and/or Equipment Description
P066	Product finishing unit 801.
P069	Product finishing unit 802.
P072	Product finishing unit 803.
P075	Product finishing unit 804.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 03-16294, issued July 6, 2006)	Particulate emissions (PE) shall not exceed 0.26 pound per hour (lb/hr) and 1.14 tons per year (tpy). [See b)(2)b.] Visible PE from the stack(s) servicing this emissions unit shall not exceed 5% opacity as a six-minute average. See b)(2)a.
b.	OAC rule 3745-17-07(A)	See b)(2)c.
c.	OAC rule 3745-17-11(B)	See b)(2)c.
d.	40 CFR Part 64 – Compliance Assurance Monitoring (CAM)	See c)(1) and d)(1) through d)(5).

(2) Additional Terms and Conditions

a. The “Best Available Technology” (BAT) requirement for this emissions unit has been determined to be the use of a control system consisting of a cyclone and baghouse (finishing dust collector). The control system shall achieve a 99% removal efficiency for PE (100% capture).

b. All PE is assumed to be in the form of particulate matter less than 10 microns in size (PM10).

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

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitations(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1.0 to 6.0 inches of water.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR 64.3(a)(2)]

(2) At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR 64.7(b)]

(3) After approval of monitoring under this part, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 or 71 permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR 64.7(e)]

(4) The CAM plan for this emissions unit has been developed for particulates. The CAM performance indicator for the baghouse controlling this emissions unit is pressure drop in inches of water which is based upon manufacturer's recommendations. When the pressure drop of the baghouse is operating outside the indicator range, the permittee shall take corrective action to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions and comply with the reporting requirements specified in e)(1). The emissions unit and control equipment shall be run in accordance with the approved CAM Plan, or any approved revision of the Plan. The baghouse operating parameter will be re-verified through periodic emission testing, or if the baghouse or emissions units operating conditions change. In addition to periodic monitoring of the baghouse operating parameter, the permittee also has an inspection and maintenance program for the baghouse. Based on the results of the monitoring and inspection program, repairs to the baghouse shall be made as needed. If the current CAM indicators and/or the baghouse inspection program are considered inadequate, the permittee will develop a Quality Improvement Plan.

[Authority for term: OAC rule 3745-77-07(A)(3)(a); OAC rule 3745-77-07(A)(3)(b); 40 CFR Part 64.3(a); 40 CFR Part 64.6(c); 40 CFR Part 64.7(d); 40 CFR Part 64.8]

(5) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on once-per-shift basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the

range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 64.3(a); 40 CFR Part 64.9(b)]

(6) Baghouse operating parameters shall be re-verified as a result of any changes to the operating conditions of the baghouse or emissions unit. In addition to periodic monitoring of the baghouse operating parameters, the permittee also has an inspection and maintenance program for the baghouse, including but not limited to:

a. checking the bags / filters for deterioration or degradation;

b. checking the cleaning system for proper operation; and

c. checking the hoppers and conveyance systems for proper operation.

Based on the results of the monitoring and inspection program, repairs to the baghouse shall be made as needed. If the current CAM indicators and/or the baghouse inspection program are considered inadequate, the permittee shall develop a Quality Improvement Plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR 64.7(e)]

(7) The permittee shall maintain a supply of replacement parts necessary to ensure ongoing proper operation of the baghouse system, including, but not limited to:

a. filter bags;

b. timing boards and solenoid coils (for blow down function);

c. diaphragms and diaphragm seal kits;

d. spare set of belts; and

e. spare bearings for blower motor.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(8) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #03-16294, issued on July 6, 2008: **[d)(4)]**. The monitoring and record keeping requirements contained in the above-referenced Permit to install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit(s):

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

d. each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-15-03(B)(1)(a); OAC rule 3745-15-03(C); OAC rule 3745-77-07(C)(1); 40 CFR Part 64.9(a)].

(2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install # 03-16294, issued on July 6, 2008: **[e)(1)]**. The reporting requirements contained in the above-referenced Permit to install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii)]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitations:</u> PE shall not exceed 0.26 lbs/hr and 1.14 tpy.

<u>Applicable Compliance Method:</u> The hourly allowable PE limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable PE limitation by testing in accordance with Methods 1-5 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

b. Emission Limitation: Visible PE shall not exceed 5 % opacity, as a six-minute average.

Applicable Compliance Method: If required, compliance shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), as such appendix existed on July 1, 2002.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

g) Miscellaneous Requirements

(1) None.

32. Emissions Unit Group - Product Finishing B 03-16294: P078, P081,

EU ID	Operations, Property and/or Equipment Description
P078	Product finishing unit 805.
P081	Product finishing unit 806.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 03-16294 issued July 6, 2006)	Particulate emissions (PE) shall not exceed 0.39 pound per hour (lb/hr) and 1.71 tons per year (tpy). [See b)(2)b.] Visible PE from the stack(s) servicing this emissions unit shall not exceed 5% opacity as a six-minute average.
b.	OAC rule 3745-17-07(A)	See b)(2)c.
c.	OAC rule 3745-17-11(B)	See b)(2)c.
d.	40 CFR Part 64 – Compliance Assurance Monitoring (CAM)	See c)(1) and d)(1) through d)(6).

(2) Additional Terms and Conditions

a. The "Best Available Technology" (BAT) requirement for this emissions unit has been determined to be the use of a control system consisting of a cyclone and baghouse (finishing dust collector). The control system shall achieve a 99% removal efficiency for PE (100% capture).

b. All PE is assumed to be in the form of particulate matter less than 10 microns in size (PM10).

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

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitations(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1.0 to 6.0 inches of water.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR 64.3(a)(2)]

(2) At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR 64.7(b)]

(3) After approval of monitoring under this part, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 or 71 permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR 64.7(e)]

(4) The CAM plan for this emissions unit has been developed for particulates. The CAM performance indicator for the baghouse controlling this emissions unit is pressure drop in inches of water which is based upon manufacturer's recommendations. When the pressure drop of the baghouse is operating outside the indicator range, the permittee shall take corrective action to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions and comply with the reporting requirements specified in e)(1). The emissions unit and control equipment shall be run in accordance with the approved CAM Plan, or any approved revision of the Plan. The baghouse operating parameter will be re-verified through periodic emission testing, or if the baghouse or emissions units operating conditions change. In addition to periodic monitoring of the baghouse operating parameter, the permittee also has an inspection and maintenance program for the baghouse. Based on the results of the monitoring and inspection program, repairs to the baghouse shall be made as needed. If the current CAM indicators and/or the baghouse inspection program are considered inadequate, the permittee will develop a Quality Improvement Plan.

[Authority for term: OAC rule 3745-77-07(A)(3)(a); OAC rule 3745-77-07(A)(3)(b); 40 CFR Part 64.3(a); 40 CFR Part 64.6(c); 40 CFR Part 64.7(d); 40 CFR Part 64.8]

(5) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on once-per-shift basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in

accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 64.3(a); 40 CFR Part 64.9(b)]

(6) Baghouse operating parameters shall be re-verified as a result of any changes to the operating conditions of the baghouse or emissions unit. In addition to periodic monitoring of the baghouse operating parameters, the permittee also has an inspection and maintenance program for the baghouse, including but not limited to:

a. checking the bags / filters for deterioration or degradation;

b. checking the cleaning system for proper operation; and

c. checking the hoppers and conveyance systems for proper operation.

Based on the results of the monitoring and inspection program, repairs to the baghouse shall be made as needed. If the current CAM indicators and/or the baghouse inspection program are considered inadequate, the permittee shall develop a Quality Improvement Plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR 64 Part 64]

(7) The permittee shall maintain a supply of replacement parts necessary to ensure ongoing proper operation of the baghouse system, including, but not limited to:

a. filter bags;

b. timing boards and solenoid coils (for blow down function);

c. diaphragms and diaphragm seal kits;

d. spare set of belts; and

e. spare bearings for blower motor.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 64]

(8) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #03-16294, issued on July 6, 2008: **[d)(4)]**. The monitoring and record keeping requirements contained in the above-referenced Permit to install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit(s):

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

d. each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-15-03(B)(1)(a); OAC rule 3745-15-03(C); OAC rule 3745-77-07(C)(1); 40 CFR Part 64.9(a)].

(2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install # 03-16294, issued on July 6, 2008: **[e)(1)]**. The reporting requirements contained in the above-referenced Permit to install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii)]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitations:</u> PE shall not exceed 0.39 lbs/hr and 1.71 tpy.

<u>Applicable Compliance Method:</u> The hourly allowable PE limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable PE limitation by testing in accordance with Methods 1-5 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

b. <u>Emission Limitation:</u> Visible PE shall not exceed 5 % opacity, as a six-minute average.

Applicable Compliance Method: If required, compliance shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), as such appendix existed on July 1, 2002.

g) Miscellaneous Requirements

(1) None.

33. Emissions Unit Group - Sear Roll/Curing A PTI 03-16294: P065, P068, P071, P074,

EU ID	Operations, Property and/or Equipment Description
P065	Sear roll and curing oven 801.
P068	Sear roll and curing oven 802.
P071	Sear roll and curing oven 803.
P074	Sear roll and curing oven 804.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 03-16294, issued July 6, 2006)	The requirements of this rule also include compliance with the requirements of 40 CFR Part 63 Subpart NNN, OAC rule 3745-17-07(A) and OAC rule 3745-21-07(G). Particulate emissions (PE) shall not exceed 0.56 pound per hour (lb/hr) and 2.45 tons per year (tpy). [See b)(2)a.] Carbon monoxide (CO) emissions shall not exceed 1.24 lbs/hr and 5.43 tpy. Organic compound (OC) emissions shall not exceed 0.51 lb/hr and 2.23 tpy. Nitrogen oxide (NOx) emissions shall not exceed 0.49 lb/hr and 2.15 tpy. Sulfur dioxide (SO2) emissions shall not exceed 0.13 lb/hr and 0.57 tpy.
b.	OAC rule 3745-17-07(A)	Visible PE from the stack(s) servicing this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	40 CFR Part 63 Subpart NNN [40 CFR 63.1380 – 1399] [In accordance with 40 CFR 63.1380(b)(3), this emissions unit is a new flame attenuation wool fiberglass manufacturing line producing a bonded pipe product.]	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 3.4 kg per mega gram (6.8 lbs for formaldehyde per ton) of glass pulled.
d.	OAC rule 3745-21-07(G)	See b)(2)d. and c)(1).
e.	OAC rule 3745-17-11(B)	See b)(2)b.
f.	OAC rule 3745-21-08(B)	See b)(2)c.
g.	OAC rule 3745-18-06(E)	See b)(2)b.
h.	OAC rule 3745-21-07(M)(4)	Exempt pursuant to OAC rule 3745-21-07(M)(5)(d)(ii).
i.	40 CFR 63.1 – 15 [40 CFR 63.1380(d)]	Table 1 of Subpart NNN of 40 CFR Part 63 – Applicability of General Provisions to Subpart NNN shows which parts of the general provisions in 40 CFR 63.1 -15 apply.

(2) Additional Terms and Conditions

a. All PE is assumed to be in the form of particulate matter less than 10 microns in size (PM10).

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).

c. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

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.

d. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-

approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[c)(1), d)(3), e)(2)]

The emission limitations and control requirements from the amended 21-07 rule, and the associated operational restrictions and the monitoring, record keeping, and reporting requirements contained in this permit, shall become federally enforceable on the date the U.S. EPA approves the revised OAC rule 3745-21-07 as a revision to the Ohio State Implementation Plan. The following terms shall become federally enforceable after U.S. EPA approves the rule revision:

[c)(2), d)(4), e)(3)]

c) Operational Restrictions

(1) The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01, is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(2) The use of any liquid organic material or substance containing liquid organic material with a volatile content greater than twenty percent, by volume, is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(M)]

(3) The permittee must use a resin in the formulation 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).

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(4) The permittee must initiate corrective action within 1 hour when the monitored process parameter level(s) is outside the limit(s) established during the performance test as specified in 40 CFR 63.1384 for the process modification(s) used to control formaldehyde emissions and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(5) The permittee must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR Part 64, Subpart D when the process parameter(s) is outside the limits(s) established during the performance test as specified in 40 CFR 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(6) The permittee must 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 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(7) The permittee must 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 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

d) Monitoring and/or Recordkeeping Requirements

(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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

(2) Notwithstanding the frequency of reporting requirements specified in e)(1), 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 abnormal visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section d)(1).

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

[Authority for term: OAC rule 3745-77-07(A)(1); PTI 03-16294]

(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 in this emissions unit; and

b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(4) The permittee shall maintain monthly records of the following information for this emissions unit:

a. The composition of the volatile content of each material employ; and

b. The liquid organic portion of the volatile content, in % by volume, of each material employed.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(M)]

(5) The permittee must establish a correlation between formaldehyde emissions and a process parameter(s) to be monitored.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(6) The permittee must monitor the established parameter(s) according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(7) The permittee must 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 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).

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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(8) The permittee must monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation binder.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(9) The permittee must monitor and record the formulation of each batch of binder used.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(10) The permittee must monitor and record at least once every 8 hours, the product LOI and product density of each bonded wool fiberglass product manufactured.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(11) The permittee shall develop and implement a written plan as described in 40 CFR 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 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 of minimize emissions.

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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(12) The permittee shall also keep records of each event as required by 40 CFR 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 63.10(e)(3)(iv).

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(13) As required by 40 CFR 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 must 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 must 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(14) In addition to the general records required by 40 CFR 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. 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving 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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a photochemically reactive material was employed. These deviation

reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a non-complying material was employed. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(M)]

(4) As required by 40 CFR 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 63.10(c) as well as the additional records required by the record keeping requirements of paragraphs d)(14) and d)(15). When no deviations have occurred, the permittee shall submit a report stating that no excess emissions occurred during the reporting period.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitations:</u>

PE shall not exceed 0.56 lb/hr and 2.45 tpy.

<u>Applicable Compliance Method:</u>

The hourly allowable PE limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable PE limitation by testing in accordance with Methods 1-5 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

b. <u>Emission Limitations:</u>

CO emissions shall not exceed 1.24 lbs/hr and 5.43 tpy.

Applicable Compliance Method:

The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable CO emission limitation by testing in accordance with Methods 1-4 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

c. Emission Limitations:

OC emissions shall not exceed 0.51 lb/hr and 2.23 tpy.

Applicable Compliance Method:

The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable OC emission limitation by testing in accordance with Methods 1-4 and Method 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

d. Emission Limitations:

NOx emissions shall not exceed 0.49 lb/hr and 2.15 tpy.

Applicable Compliance Method:

The hourly allowable NOx emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable OC emission limitation by testing in accordance with Methods 1-4 and 7, 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

e. Emission Limitations:

SO2 emissions shall not exceed 0.13 lb/hr and 0.57 tpy.

Applicable Compliance Method:

The hourly allowable SO2 emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass] derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable SO2 emission limitation by testing in accordance with Methods 1-4 and 6, 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

f. Emission Limitation:

Formaldehyde emissions shall not exceed 6.8 lbs per ton of glass pulled.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in the operation, maintenance and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

g. Emission Limitation:

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

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

(2) Unless disapproved by the Director, the 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 test without first conducting performance tests. Such runs must not exceed 1 week in duration unless the Director approves a longer period. The permittee must 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 must inform the permittee of a decision

to disapprove or must request additional information prior to the date of the short-term experimental production runs. Notification of the intent to perform and experimental short-term production runt 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

g) Miscellaneous Requirements

(1) For all control device and 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 permittee shall conduct all additional performance tests according to the procedures 40 CFR part 63, subpart A and in 40 CFR part 63.1384.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) The written operations, maintenance and monitoring plan required by 40 CFR 63.1383(a) has been submitted and approved by the Administrator. This plan shall be updated if the control device and/or process operating parameters measured during the initial performance are modified in accordance with g)(1) above.

[Authority for term: OAC rule 3745-77-07(C)(1)]

34. Emissions Unit Group - Sear Roll/Curing B PTI 03-16294: P077, P080,

EU ID	Operations, Property and/or Equipment Description
P077	Sear roll and curing oven 805.
P080	Sear roll and curing oven 806.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 03-16294, issued July 6, 2006)	The requirements of this rule also include compliance with the requirements of 40 CFR Part 63 Subpart NNN, OAC rule 3745-17-07(A) and OAC rule 3745-21-07(G). Particulate emissions (PE) shall not exceed 0.83 pound per hour (lb/hr) and 3.64 tons per year (tpy). [See b)(2)a.] Carbon monoxide (CO) emissions shall not exceed 1.86 lbs/hr and 8.15 tpy. Organic compound (OC) emissions shall not exceed 0.76 lb/hr and 3.33 tpy. Nitrogen oxide (NOx) emissions shall not exceed 0.73 lb/hr and 3.20 tpy. Sulfur dioxide (SO2) emissions shall not exceed 0.20 lb/hr and 0.88 tpy.
b.	OAC rule 3745-17-07(A)	Visible PE from the stack(s) servicing this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule..
c.	40 CFR Part 63 Subpart NNN [40 CFR 63.1380 – 1399]	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 3.4 kg per mega

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	[In accordance with 40 CFR 63.1380(b)(3), this emissions unit is a new flame attenuation wool fiberglass manufacturing line producing a bonded pipe product.]	gram (6.8 lbs for formaldehyde per ton) of glass pulled.
d.	OAC rule 3745-21-07(G)	See b)(2)d. and c)(1).
e.	OAC rule 3745-17-11(B)	See b)(2)b.
g.	OAC rule 3745-21-08(B)	See b)(2)c.
h.	OAC rule 3745-18-06(E)	See b)(2)b.
i.	40 CFR 63.1-15 [CFR 63.1380(d)]	Table 1 of Subpart NNN of 40 CFR Part 63 – Applicability of General Provisions to Subpart NNN shows which parts of the general provisions in 40 CFR 63.1 -15 apply.

(2) Additional Terms and Conditions

a. All PE is assumed to be in the form of particulate matter less than 10 microns in size (PM10).

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).

c. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

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.

d. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 provisions still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

(1) The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01, is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(2) The use of any liquid organic material or substance containing liquid organic material with a volatile content greater than twenty percent, by volume, is prohibited.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(M)]

(3) The permittee must initiate corrective action within 1 hour when the monitored process parameter level(s) is outside the limit(s) established during the performance test as specified in 40 CFR 63.1384 for the process modification(s) used to control formaldehyde emissions and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(4) The permittee must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR Part 64, Subpart D when the process parameter(s) is outside the limits(s) established during the performance test as specified in 40 CFR 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(5) The permittee must 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 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(6) The permittee must use a resin in the formulation 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).

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(7) The permittee must 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 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.

[Authority for term: OAC rule 3745-77-07(A)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

d) Monitoring and/or Recordkeeping Requirements

(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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

(2) Notwithstanding the frequency of reporting requirements specified in d)(1), 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 abnormal visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section d)(1).

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

[Authority for term: OAC rule 3745-77-07(A)(1); PTI 03-16294]

(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 in this emissions unit; and

b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

[Authority for term: OAC rule 3745-77-07(A)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(4) The permittee shall maintain monthly records of the following information for this emissions unit:

a. The composition of the volatile content of each material employ; and

b. The liquid organic portion of the volatile content, in % by volume, of each material employed.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(M)]

(5) The permittee must establish a correlation between formaldehyde emissions and a process parameter(s) to be monitored.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(6) The permittee must monitor the established parameter(s) according to the procedures in the operations, maintenance, and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(7) The permittee must 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 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).

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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(8) The permittee must monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation binder.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(9) The permittee must monitor and record the formulation of each batch of binder used.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(10) The permittee must monitor and record at least once every 8 hours, the product LOI and product density of each bonded wool fiberglass product manufactured.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(11) The permittee shall develop and implement a written plan as described in 40 CFR 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 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 of minimize emissions.

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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(12) The permittee shall also keep records of each event as required by 40 CFR 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 63.10(e)(3)(iv).

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(13) As required by 40 CFR 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 must 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 must 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

(14) In addition to the general records required by 40 CFR 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. 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving 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.

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a photochemically reactive material was employed. These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-07(G); PTI 03-16294]

(3) As required by 40 CFR 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 63.10(c) as well as the additional records required by the record keeping requirements of paragraphs d)(14) and d)(15). When no deviations have occurred, the permittee shall submit a report stating that no excess emissions occurred during the reporting period.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:

PE shall not exceed 0.83 lb/hr and 3.64 tpy.

Applicable Compliance Method:

The hourly allowable PE limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable PE limitation by testing in accordance with Methods 1-5 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

b. Emission Limitations:

CO emissions shall not exceed 1.86 lbs/hr and 8.15 tpy.

Applicable Compliance Method:

The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable CO emission limitation by testing in accordance with Methods 1-4 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

c. Emission Limitations:

OC emissions shall not exceed 0.76 lb/hr and 3.33 tpy.

Applicable Compliance Method:

The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions

unit. If required, the permittee shall demonstrate compliance hourly allowable OC emission limitation by testing in accordance with Methods 1-4 and Method 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

d. Emission Limitations:

NOx emissions shall not exceed 0.73 lb/hr and 3.20 tpy.

Applicable Compliance Method:

The hourly allowable NOx emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable OC emission limitation by testing in accordance with Methods 1-4 and 7, 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

e. Emission Limitations:

SO2 emissions shall not exceed 0.20 lb/hr and 0.88 tpy.

Applicable Compliance Method:

The hourly allowable SO2 emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass] derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable SO2 emission limitation by testing in accordance with Methods 1-4 and 6, 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 calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

[Authority for term: OAC rule 3745-77-07(C)(1); PTI 03-16294]

Emission Limitation:

Formaldehyde emissions shall not exceed 6.8 lbs per ton of glass pulled.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in the operation, maintenance and monitoring plan.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

f. Emission Limitation:

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

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-07(B); PTI 03-16294]

(2) Unless disapproved by the Director, the 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 test without first conducting performance tests. Such runs must not exceed 1 week in duration unless the Director approves a longer period. The permittee must 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 must inform the permittee of a decision to disapprove or must request additional information prior to the date of the short-term experimental production runs. Notification of the intent to perform and experimental short-term production runt 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.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN; PTI 03-16294]

g) Miscellaneous Requirements

(1) For all control device and 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 permittee shall conduct all additional performance tests according to the procedures 40 CFR part 63, subpart A and in 40 CFR part 63.1384.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR Part 63 Subpart NNN]

(2) The written operations, maintenance and monitoring plan required by 40 CFR 63.1383(a) has been submitted and approved by the Administrator. This plan shall be updated if the control device and/or process operating parameters measured during the initial performance are modified in accordance with g)(1) above.

[Authority for term: OAC rule 3745-77-07(C)(1)]

35. Emissions Unit Group - Unit 89 Cullet Silos: P054, P055,

EU ID	Operations, Property and/or Equipment Description
P054	Unit 89 Internal cullet silo.
P055	Unit 89 External cullet silo.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D (PTI 03-10931, issued December 6, 2001)	Particulate emissions (PE) shall not exceed 66.80 tons per rolling, 365-day period [See b)(2)a.]
b.	OAC rule 3745-31-05(A)(3) (PTI 03-10931, issued December 6, 2001)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D). PE shall not exceed 0.10 lb/hr and 0.44 tons per year (TPY). Visible PE from the stack(s) servicing this emissions unit shall not exceed 0% opacity. See b)(2)b.
c.	OAC rule 3745-17-07(A)	See b)(2)d.
d.	OAC rule 3745-17-11(B)	See b)(2)d.

(2) Additional Terms and Conditions

a. The permittee has requested a federally enforceable restriction of 66.80 tons PE per rolling, 365-day period for purposes of avoiding PSD.

The combined annual PE from Line 89, which includes emissions units P047, P048, P049, P050, P051, P052, P054 and P055, shall not exceed 66.80 tons, based upon a rolling, 365-day summation of the monthly PE rates.

b. The emissions from this emissions unit shall be vented to a baghouse at all times the emissions unit is in operation.

c. All PE is assumed to be in the form of PM10.

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

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitations(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.5 to 10.0 inches of water.

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on hourly basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The acceptable pressure drop shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted and the appropriate range is established to demonstrate compliance.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-10931]

(3) The permittee shall maintain the following daily records for this emissions unit:

a. the company identification for each product group manufactured;

b. the numbers of hours of production for each product group manufactured;

c. the calculated PE factor (lbs PE/hour of production), based upon the emission factor curve*, for each product group manufactured; and

d. the total PE rate (lbs/day), for all the product groups manufactured [summation of (c x b) for all product groups].

* The permittee calculates the hourly PE by employing a pac factor. The pack factor is the design density of each product produced multiplied by the design thickness of the same product. This resultant value is used to figure out the PE (lbs/hr) from the emission factor curve. The emission factor curve is a statistical polynomial and was derived from multiple stack tests on this emissions unit. The hourly PE calculated from the polynomial is then multiplied by the number of hours of production of the product for which the pack factor was calculated.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-10931]

(4) The permittee shall calculate and maintain daily records of the particulate emissions and the rolling 365-day emissions of particulates, in tons, for emissions units P047, P048, P049, P048, P049, P050, P051, P052, P054 and P055, combined.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-10931]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit(s):

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the range specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;

b. an identification of each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

d. an identification of each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

If no deviations/excursions occurred during a calendar quarter, the report shall so state that no deviations occurred during the reporting period.

The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C) and OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day PE limitation of 68.8 tons (for emissions units P047, P048, P049, P050, P051, P052, P054 and P055, combined). These deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-10931]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of the terms and conditions of this permit shall be determined in accordance with the following methods:

a. <u>Emission Limitation:</u>

PE shall not exceed 66.80 tons per rolling 365-day period (for emissions units P047, P048, P049, P050, P051, P052, P054 and P055, combined)

<u>Applicable Compliance Method:</u>

Compliance with the rolling 365-day PE limitation shall be demonstrated by the record keeping requirements specified in d)(2) and d)(3) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-10931]

b. Emission Limitations:

PE shall not exceed 0.10 lb/hr and 0.44 tpy.

Applicable Compliance Method:

The hourly allowable PE limitation was established by multiplying an outlet grain loading of 0.02 gr/scf by the maximum flow rate of the silos dust collector (565 acfm) and by 60, and then dividing by 7000.

If required, the permittee shall demonstrate compliance with the hourly PE limitation shall be demonstrated by testing in accordance with Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

The tons/yr PE limitation was developed by multiplying the lbs/hr PE limitation by the maximum operating schedule of 8760 hours/yr, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-10931]

c. Emission Limitation:

Visible PE shall not exceed 0% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-10931]

g) Miscellaneous Requirements

(1) None.

36. Emissions Unit Group - Curing Ovens #23 & 25 (Plant 2): P316, P318,

EU ID	Operations, Property and/or Equipment Description
P316	Fiber glass curing oven #23.
P318	Fiber glass curing oven #25.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-11(B)(1)	Particulate emissions (PE) shall not exceed 1.66 pounds per hour (lbs/hr).
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.
c.	OAC rule 3745-18-06(E)	Exempt [See b)(2)a.]
d.	OAC rule 3745-21-07(G)	None [See b)(2)b. and b)(2)c.]

(2) Additional Terms and Conditions

a. This emissions unit is exempt from the requirements of OAC rule 3745-18-06(E) pursuant to OAC rule 3745-18-06(C) because the process weight rate (natural gas) is less than 1,000 pounds per hour.

b. This emissions unit is located in Defiance County, which is not a “Priority I” county as indicated in paragraph (A) of OAC rule 3745-21-06 and was installed prior to February 15, 1972. Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).

c. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio’s State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 provisions still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(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 long:

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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) Notwithstanding the frequency of reporting requirements specified in d)(1), 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 abnormal visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in d)(1).

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving 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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following:

a. Emission Limitation:

PE shall not exceed 1.66 lbs/hr

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-77-07(C)(1); 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).

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(1)]

g) Miscellaneous Requirements

(1) None.

37. Emissions Unit Group - Curing Ovens #81 and #82: P043, P044,

EU ID	Operations, Property and/or Equipment Description
P043	Fiber glass curing oven #81.
P044	Fiber glass curing oven #82.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-11(B)(1)	Particulate emissions (PE) shall not exceed 2.79 pounds per hour (lbs/hr).
b.	OAC rule 3745-17-07(A)	Visible PE from the stacks servicing these emissions units shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
c.	OAC rule 3745-18-06(E)	None [See b)(2)a.]
d.	OAC rule 3745-21-07(G)	None [See b)(2)b. and b)(2)c.]

(2) Additional Terms and Conditions

a. This emissions unit is exempt from the requirements of OAC rule 3745-18-06(E) pursuant to OAC rule 3745-18-06(C) because the process weight rate (natural gas) is less than 1,000 pounds per hour.

b. This emissions unit is located in Defiance County, which is not a “Priority I” county as indicated in paragraph (A) of OAC rule 3745-21-06 and was installed prior to February 15, 1972. Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07(G).

c. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio’s State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 provisions still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

(1) None

d) Monitoring and/or Recordkeeping Requirements

(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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) Notwithstanding the frequency of reporting requirements specified in d)(1), 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 d)(1).

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:

PE shall not exceed 2.79 lbs/hr.

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(10)]

b. 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 with the visible PE limitation in accordance with the methods in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-17-03(B)(1)]

g) Miscellaneous Requirements

(1) None.