State of Ohio Environmental Protection Agency

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

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

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

01/06/06

CERTIFIED MAIL

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

03-20-01-0005
Johns Manville International, Inc.
George Richard Bonin
925 Carpenter Road
Defiance, OH 43512

Dear George Richard Bonin:

You are hereby notified that the Ohio Environmental Protection Agency has prepared the enclosed draft of the Title V permit for the facility referenced above. The purpose of this draft is to solicit public comments. A public notice concerning the draft will appear in the Ohio EPA Weekly Review and the major newspaper in the county where the facility is located. Comments and/or a request for a public hearing from the public and any affected parties will be accepted by Northwest District Office within 30 days of the date of publication in the newspaper. You will be notified in writing if a public hearing is scheduled.

A decision on processing the Title V permit will be made after consideration of written public comments and oral testimony (if a public hearing is conducted). After the comment period, you will be provided with a Preliminary Proposed Title V permit and an opportunity to comment prior to the Proposed Title V permit submittal to USEPA.

If you have any questions or comments concerning this draft Title V permit, please contact Northwest District Office.

Very truly yours,

Michael W. Ahern

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

cc: USEPA (electronic)
Jim Orlemann, DAPC Engineering
Michael Ahern, DAPC PMU
Northwest District Office
Indiana
Michigan

State of Ohio Environmental Protection Agency

DRAFT TITLE V SIGNIFICANT PERMIT MODIFICATION

Original Effective Date:	Expiration Date:	Modification Effective Date: ***To be entered upon final issuance***

This document constitutes issuance of a Title V significant permit modification for Facility ID: 03-20-01-0005 to:

Johns Manville International, Inc.
925 Carpenter Road
Defiance, OH 43512

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

P001 (Unit 81 - Forming and Collection)
Melts glass using natural gas to make glass fibers.

P005 (Blowing Wool Manufacturing)
Fiber glass shredder and hammermill.

P008 (Unit 88 - Forming and Collection)
Melts glass using natural gas to make glass fibers.

P012 (Unit 82 - Forming and Collection)
Melts glass using natural gas to make glass fibers.

P013 (Unit 84 - Forming and Collection)
Melts glass using natural gas to make glass fibers.

P015 (Unit 86 - Forming and Collection)
Melts glass using natural gas to make glass fibers.

P029 (Unit 86 - Curing Oven)
Fiber glass curing oven.

P043 (Unit 81 - Curing Oven)
Fiber glass curing oven (formerly Z002).

P044 (Unit 82 - Curing Oven)
Fiber glass curing oven (formerly Z004).

P047 (Unit 89 Hot End)
This process operates by melting glass using natural gas to make glass fibers.

P048 (Unit 89 Collection Module A)
This process operates by melting glass using natural gas to make glass fibers.

P049 (Unit 89 Collection Module B)
This process operates by melting glass using natural gas to make glass fibers.

P050 (Unit 89 Collection Module C)
This process operates by melting glass using natural gas to make glass fibers.

P051 (Unit 89 - Curing Oven)
Fiber glass curing oven.

P052 (Unit 89 Cooling Table)
Cooling table.

P054 (Unit 89 Internal Cullet Silo)
Internal cullet silo.

P055 (Unit 89 External Cullet Silo)
External cullet silo.

P093 (Unit 87 - Curing Oven)
Fiber glass curing oven. (formerly P319)

P094 (Unit 84 - Curing Oven)
Fiber glass curing oven. (formerly P318)

P095 (Unit 85 - Curing Oven)
Fiber glass curing oven. (formerly P317)

Z028 (Process Water Treatment)
Process water treatment pond (changed to unit P801)

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

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

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

OHIO ENVIRONMENTAL PROTECTION AGENCY

Joseph P. Koncelik
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

1. Monitoring and Related Record Keeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.III of Part III of this Title V permit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

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

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. The operating conditions existing at the time of sampling or measurement.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

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

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

i. **All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:**

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

In accordance with OAC rule 3745-15-06, a malfunction 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))

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

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (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 General Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (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 General Term and Condition.

See B.6 below if no deviations occurred during the quarter.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

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

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; General Terms and Conditions: A.2, A.3, A.4, A.6.e, A.7, A.12, A.14, A.18, A.19, A.20, and A.22 of Part I of this Title V permit, as well as any deviations from the requirements in Section A.V or A.VI of Part III of this Title V permit**,** and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted (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 Part II.A 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 General Term and Condition A.1.c.ii above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.
(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

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

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

2. Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in General Term and Condition A.1.c.i above.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Risk Management Plans

If applicable, the permittee shall develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. (“Act”); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

a. a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or

b. as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

4. Title IV Provisions

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

5. Severability Clause

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

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

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

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

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

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

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 upon final issuance of all applicable OAC Chapter 3745-35 operating permits and/or registrations for all subject emissions units located at the facility and:

   i. 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

   ii. 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

   iii. a combination of i. and ii. above.

   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))

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.
(Authority for term: OAC rule 3745-77-07(A)(8))

8. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.
(Authority for term: OAC rule 3745-77-07(A)(9))

9. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.
(Authority for term: OAC rule 3745-77-07(A)(10))

10. Reopening for Cause

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

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

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

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

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

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

11. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.
(Authority for term: OAC rule 3745-77-07(B))

12. Compliance Requirements

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

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

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

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

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

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

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

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

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

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

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

ii. Compliance certifications shall include the following:

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

(b) The permittee's current compliance status.

(c) Whether compliance was continuous or intermittent.

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

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

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

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

13. Permit Shield

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

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

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

14. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed

under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).
(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

15. Emergencies

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

16. Off-Permit Changes

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

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

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

17. Compliance Method Requirements

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

18. Insignificant Activities 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))

19. Permit to Install Requirement

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

20. Air Pollution Nuisance

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

21. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification 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)

22. 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))

B. ***State Only Enforceable Section***

1. Reporting Requirements Related to Monitoring and Record Keeping Requirements

The permittee shall submit required reports in the following manner:

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

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

2. Records Retention Requirements

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

3. Inspections and Information Requests

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

4. Scheduled Maintenance/Malfunction Reporting

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

5. Permit Transfers

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

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

If no 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 General Term and Condition A.1.c.ii; 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.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforceable Section

None

B. State Only Enforceable Section

1. The following insignificant emissions units are located at this facility:
B003 - Boiler, fire protection
B004 - Boiler, west binder room
B006 - Air make-up unit
B007 - Air make-up unit
P003 - Off line water based spray coater
P033 - QC test press
P034 - QC test press
P035 - East binder room, 8 mixing tanks
P037 - West binder room, 2 pre-mixing tanks
P038 - West binder room, 6 mixing tanks
P042 - QC test oven D
Z001 - Resin tanks
Z003 - 81 cooling, slitting & chopping
Z005 - 82 cooling, slitting & chopping
Z006 - 84 slitting & chopping
Z008 - 86 cooling, slitting, & chopping
Z011 - Unit 88, water-based spray coater & drying oven
Z012 - 88 cooling, slitting & chopping
Z013 - QC test ovens A, B, and C
Z014 - Bailer for scrap
Z015 - Product packing & storage
Z016 - Process water storage pond

Z017 - Process water treatment: shaker screen
Z018 - Process water treatment: hydro-float
Z026 - Unit 89 pre-mix tanks
Z027 - Unit 89 process water treatment: shaker screens
Z029 - Caustic tank
Z040 - Tank, ammonia
Z047 - Glass marble tippers
Z048 - Urea hopper loading
Z050 - Safety Kleen stations
Z054 - Unit 89 resin tanks
Z901 - Air make-up unit
Z902 - Air make-up unit
Z903 - Air make-up unit
Z905 - Air make-up unit
Z906 - Air make-up unit
Z907 - Air make-up unit
Z909 - Air make-up unit
Z910 - Air make-up unit
Z911 - Air make-up unit
Z912 - Air make-up unit
Z913 - Air make-up unit

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 81 - Forming and Collection (P001)

Activity Description: Melts glass using natural gas to make glass fibers.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
fiberglass forming line; unit 81	OAC rule 3745-17-11 (B)(1)	See A.I.2.a.
	OAC rule 3745-17-07 (A)	Visible particulate emissions (PE) from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	none (See A.I.2.b.)

2. Additional Terms and Conditions

2.a PE from this emissions unit shall be less than 10 lbs/hr*.

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

2.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).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping 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 Section IV, 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 section A.III.1.

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)]

IV. 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)]

V. Testing Requirements

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

1.a Emission Limitation:
less than 10.0 lbs PE/hr

Applicable Compliance Method:
Compliance with the hourly allowable PE limitation above shall be based on the results of the 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) and OAC rule 3745-17-03(B)(10)]

V. Testing Requirements (continued)

1.b 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) and OAC rule 3745-17-03(B)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and with the allowable visible PE limitation.

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

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

ii. for visible PE: Method 9 of 40 CFR, Part 60, Appendix A.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

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

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

Personnel from the Director (the Ohio EPA, Northwest District Office) shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

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

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Blowing Wool Manufacturing (P005)

Activity Description: Fiber glass shredder and hammermill.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
fiberglass shredder and hammermill w/baghouse	OAC rule 3745-17-11(B)(1)	5.85 lbs particulate emissions (PE)/hr
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 0.5 to 8.0 inches of water while the emissions unit is in operation.

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

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once per shift basis.

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

IV. Reporting Requirements

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

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

V. Testing Requirements

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

1.a Emission Limitation:
5.85 lbs PE/hr

Applicable Compliance Method:

Compliance with the PE limitation was demonstrated by multiplying the manufacturer's maximum designed outlet grain loading of 0.02 gr/scf by the maximum flow rate of the silos dust collector (17,600 acfm) and by 60, and then dividing by 7000.

If required, the permittee shall demonstrate compliance with the hourly allowable PE limitation in accordance with the methods in OAC rule 3745-17-03(B)(10).

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

1.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) and OAC rule 3745-17-03(B)(1)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 88 - Forming and Collection (P008)

Activity Description: Melts glass using natural gas to make glass fibers.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
fiberglass forming line; unit 88	OAC rule 3745-17-11 (B)(1)	See A.I.2.a.
	OAC rule 3745-17-07 (A)	Visible particulate emissions (PE) from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	none (See A.II.1.)

2. Additional Terms and Conditions

2.a PE from this emissions unit shall be less than 10 lbs/hr*.

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

II. 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(C)(1) and OAC rule 3745-21-07(G)(9)(d)]

III. Monitoring and/or Record Keeping 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 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 Section IV, 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 section A.III.1.

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 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. 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)]

IV. 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)]

IV. Reporting Requirements (continued)

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

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

V. Testing Requirements

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

1.a Emission Limitation:
less than 10.0 lbs PE/hr

Applicable Compliance Method:
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) and OAC rule 3745-17-03(B)(10)]

1.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) and OAC rule 3745-17-03(B)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and with the allowable visible PE limitation.

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

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

ii. for visible PE: Method 9 of 40 CFR, Part 60, Appendix A.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

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

V. Testing Requirements (continued)

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

Personnel from the Director (the Ohio EPA, Northwest District Office) shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

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

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 82 - Forming and Collection (P012)

Activity Description: Melts glass using natural gas to make glass fibers.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
fiberglass forming line, unit 82	OAC rule 3745-31-05(A)(3) (PTI 03-08472)	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). 8.1 lbs particulate emissions (PE)/hr See A.I.2.a.
	OAC rule 3745-17-07 (A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11 (B)(1)	The PE limitation based on this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-21-07(G)	none (See A.I.2.b.)

2. Additional Terms and Conditions

2.a The PE limitation for this emissions unit was established in PTI #03-8472 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.

2.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).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping 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 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 Section IV, 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 section A.III.1.

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

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

IV. 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)]

V. Testing Requirements

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

1.a Emission Limitation:
8.10 lbs PE/hr

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

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

V. Testing Requirements (continued)

1.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) and OAC rule 3745-17-03-(B)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and with the allowable visible PE limitation.

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

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

ii. for visible PE: Method 9 of 40 CFR, Part 60, Appendix A.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

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

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

Personnel from the Director (the Ohio EPA, Northwest District Office) shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

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

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 84 - Forming and Collection (P013)

Activity Description: Melts glass using natural gas to make glass fibers.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
fiberglass forming line; unit 84	OAC rule 3745-17-11 (B)(1)	See A.I.2.a.
	OAC rule 3745-17-07 (A)	Visible particulate emissions (PE) from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	none (See A.I.2.b.)

2. Additional Terms and Conditions

2.a PE from this emissions unit shall be less than 10 lbs/hr*.

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

2.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).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping 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 Section IV, 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 section A.III.1.

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)]

IV. 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)]

V. Testing Requirements

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

1.a Emission Limitation:
less than 10.0 lbs PE/hr

Applicable Compliance Method:
Compliance with the hourly allowable PE limitation above shall be based on the results of the 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) and OAC rule 3745-17-03(B)(10)]

V. Testing Requirements (continued)

1.b 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) and OAC rule 3745-17-03(B)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and with the allowable visible PE limitation.

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

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

ii. for visible PE: Method 9 of 40 CFR, Part 60, Appendix A.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

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

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

Personnel from the Director (the Ohio EPA, Northwest District Office) shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

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

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 86 - Forming and Collection (P015)

Activity Description: Melts glass using natural gas to make glass fibers.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
fiberglass forming line; unit 86	OAC rule 3745-17-11 (B)(1)	See A.I.2.a.
	OAC rule 3745-17-07 (A)	Visible particulate emissions (PE) from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	none (See A.I.2.b.)

2. Additional Terms and Conditions

2.a PE from this emissions unit shall be less than 10 lbs/hr*.

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

2.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).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping 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 Section IV, 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 section A.III.1.

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)]

IV. 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)]

V. Testing Requirements

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

1.a Emission Limitation:
less than 10.0 lbs PE/hr

Applicable Compliance Method:
Compliance with the hourly allowable PE limitation above shall be based on the results of the 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) and OAC rule 3745-17-03(B)(10)]

V. Testing Requirements (continued)

1.b 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) and OAC rule 3745-17-03(B)(1)]

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and with the allowable visible PE limitation.

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

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

ii. for visible PE: Method 9 of 40 CFR, Part 60, Appendix A.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

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

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

Personnel from the Director (the Ohio EPA, Northwest District Office) shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

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

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 86 - Curing Oven (P029)

Activity Description: Fiber glass curing oven.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
fiberglass curing oven w/ high energy air filtration (HEAF) unit; unit #86	OAC rule 3745-31-05 (PTI 03-06749)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-21-07(G), 3745-17-11, 3745-21-08 and 3745-23-06. 8.32 tons particulate emissions (PE)/yr 3.50 lbs organic compounds (OC)/hr, 15.33 tons OC/yr 2.47 lbs carbon monoxide (CO)/hr, 10.80 tons CO/yr 1.30 lbs sulfur dioxide (SO2)/hr, 5.69 tons SO2/yr 0.43 lb nitrogen oxides (NOx)/hr, 1.88 tons NOx/yr 0.60 lb formaldehyde/hr, 2.63 tons formaldehyde/yr 0.54 lb phenol/hr, 2.37 tons phenol/yr
	OAC rule 3745-17-11(B)	1.90 lbs PE/hr
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	Exempt, pursuant to OAC rule 3745-21-07 (G)(9)(c) (see A.II.4).
	OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.I.2.a.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-18-06(E)	See A.I.2.b.

2. Additional Terms and Conditions

2.a The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 03-06749.

2.b The SO2 emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.c The hourly and annual emission limitations for OC, CO, SO2, NOx, PE, formaldehyde and phenol were established for PTI purposes to represent the emissions unit's potentials to emit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these limitations.

II. Operational Restrictions

1. The permittee shall install and operate a sensor to monitor the quantity of unused filter media. When the sensor indicates that the quantity of unused filter media is getting low, the permittee shall promptly replace it.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 03-6749]

2. The filter media used in the HEAF unit to control PE shall be metered into the unit on a timed basis. New filter media shall be indexed into the HEAF unit on a minimum basis of every 15 minutes.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 03-6749]

3. The permittee shall operate sensors in the HEAF unit and its duct work to indicate the presence of a fire. These sensors shall also activate the fire sprinklers.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 03-6749]

4. 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 photochemically reactive material.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-21-07(G)(9)(c)]

III. Monitoring and/or Record Keeping 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)]

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

2. The permittee shall collect and record the following information each day for this emissions unit:

a. The date and time of each filter media change.

b. The date and time the HEAF unit was shut down and a description of any repairs made.

c. The date and time of any fires in the HEAF unit or its associated duct work.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-6749]

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 eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 03-6749]

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from at least 5 days per week to weekly readings if the following conditions are met:

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

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

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) and PTI 03-6749]

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a a noncomplying material (see section A.II.4 of this permit) was employed in this emissions unit. These deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

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

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 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 03-06749]

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) and PTI 03-06749]

V. Testing Requirements

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

1.a Emission Limitations: 1.9 lbs PE/hr, 8.32 tons/yr

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

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

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), OAC rule 3745-17-03(B)(10) and PTI 03-06749]

1.b Emission Limitations: 3.5 lbs OC/hr, 15.33 tons OC/yr

Applicable Compliance Method: The hourly emission limitation was established by multiplying the maximum process weight rate (tons/hr) [as indicated in the permit application] by an emission factor (lbs/ton) derived from the results of stack testing conducted on a similar emissions unit.

If required the permittee shall demonstrate compliance by testing in accordance with Method 18, Method 25, or Method 25A, as appropriate, 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) and PTI 03-06749]

1.c Emission Limitations: 2.47 lbs CO/hr, 10.80 tons CO/yr

Applicable Compliance Method: The hourly emission limitation was established by multiplying the maximum process weight rate (tons/hr) [as indicated in the permit application] by an emission factor (lbs/ton) derived from the results of stack testing conducted on 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.

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) and PTI 03-06749]

V. Testing Requirements (continued)

1.d Emission Limitations: 1.30 lbs SO2/hr, 5.69 tons SO2/yr

Applicable Compliance Method: The hourly emission limitation was established by multiplying the maximum process weight rate (tons/hr) [as indicated in the permit application] by an emission factor (lbs/ton) derived from the results of stack testing conducted on 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.

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) and PTI 03-06749]

1.e Emission Limitations: 0.43 lb NOx/hr, 1.88 tons NOx/yr

Applicable Compliance Method: The hourly emission limitation was established by multiplying the emission factor from AP-42, Table 1.4 (revised 2/98) of 100 lbs NOx/mm cu. ft. of natural gas by the maximum natural gas burning capacity of the emissions unit (0.0043 mm cu. ft/hr).

If required the permittee shall demonstrate compliance by testing in accordance with Methods 1 - 4 and 7 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) and PTI 03-06749]

1.f Emission Limitations: 0.60 lb formaldehyde/hr, 2.63 tons formaldehyde/yr

Applicable Compliance Method: The hourly emission limitation was established by multiplying the maximum process weight rate (tons/hr) [as indicated in the permit application] by an emission factor (lbs/ton) derived from the results of stack testing conducted on a similar emissions unit.

If required the permittee shall demonstrate compliance by testing in accordance with Methods 316 or 318 of 40 CFR, Part 63, 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) and PTI 03-06749]

1.g Emission Limitations: 0.54 lb phenol/hr, 2.37 tons phenol/yr

Applicable Compliance Method: The hourly emission limitation was established by multiplying the maximum process weight rate (tons/hr) [as indicated in the permit application] by an emission factor (lbs/ton) derived from the results of stack testing conducted on a similar emissions unit.

If required the permittee shall demonstrate compliance by use of an appropriate test method approved by Ohio EPA.

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) and PTI 03-06749]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 81 - Curing Oven (P043)

Activity Description: Fiber glass curing oven (formerly Z002).

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
fiberglass curing operation w/ high energy air filtration (HEAF); unit 81	OAC rule 3745-17-11 (B)(1)	2.78 lbs particulate emissions (PE)/hr
	OAC rule 3745-17-07 (A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	none (See A.I.2.a.)
	OAC rule 3745-18-06(E)	None, exempt pursuant to OAC rule 3745-18-06(C) (See A.I.2.b.)

2. Additional Terms and Conditions

2.a 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).

2.b There are no sulfur dioxide emission limitations established by OAC Chapter 3745-18 for this emissions unit because the process weight rate is less than 1,000 pounds/hour.

II. Operational Restrictions

1. The filter media used in the HEAF units to control PE shall be metered into the unit on a timed basis. New filter media shall be indexed into the HEAF unit on a minimum basis of every 15 minutes.

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

2. The permittee shall install a sensor to monitor the quantity of unused filter media. When the sensor indicates that the quantity of unused filter media is getting low, the permittee shall promptly replace it.

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

3. The permittee shall operate sensors in the HEAF unit and its duct work to indicate the presence of a fire. These sensors shall also activate the fire sprinklers.

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

III. Monitoring and/or Record Keeping Requirements

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

a. The date and time of each filter media change.

b. The date and time the HEAF unit was shut down and a description of any repairs made.

c. The date and time of any fires in the HEAF unit or the associated duct work.

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

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 eliminate the visible emissions.

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

3. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from at least 5 days per week to weekly readings if the following conditions are met:

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

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

IV. Reporting Requirements

1. The permittee shall notify the Director (the Ohio EPA, Northwest District Office) in writing of any daily record showing that a HEAF unit serving this emissions unit was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Northwest District Office) within 30 days after the event occurs.

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

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 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)]

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitation: 2.78 lbs PE/hr

Applicable Compliance Method: If required, compliance with the hourly PE limitation above shall be demonstrated in accordance with the methods in OAC rule 3745-17-03(B)(10).

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

1.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) and OAC rule 3745-17-03(B)(1)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 82 - Curing Oven (P044)

Activity Description: Fiber glass curing oven (formerly Z004).

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
fiberglass curing operation w/ high energy air filtration (HEAF); unit 82	OAC rule 3745-17-11 (B)(1)	2.78 lbs particulate emissions (PE)/hr
	OAC rule 3745-17-07 (A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	none (See A.I.2.a.)
	OAC rule 3745-18-06(E)	None, exempt pursuant to OAC rule 3745-18-06(C) (See A.I.2.b.)

2. Additional Terms and Conditions

2.a 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).

2.b There are no sulfur dioxide emission limitations established by OAC Chapter 3745-18 for this emissions unit because the process weight rate is less than 1,000 pounds/hour.

II. Operational Restrictions

1. The filter media used in the HEAF units to control PE shall be metered into the unit on a timed basis. New filter media shall be indexed into the HEAF unit on a minimum basis of every 15 minutes.

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

2. The permittee shall install a sensor to monitor the quantity of unused filter media. When the sensor indicates that the quantity of unused filter media is getting low, the permittee shall promptly replace it.

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

3. The permittee shall operate sensors in the HEAF unit and its duct work to indicate the presence of a fire. These sensors shall also activate the fire sprinklers.

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

III. Monitoring and/or Record Keeping Requirements

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

a. The date and time of each filter media change.

b. The date and time the HEAF unit was shut down and a description of any repairs made.

c. The date and time of any fires in the HEAF unit or the associated duct work.

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

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 eliminate the visible emissions.

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

3. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from at least 5 days per week to weekly readings if the following conditions are met:

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

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

IV. Reporting Requirements

1. The permittee shall notify the Director (the Ohio EPA, Northwest District Office) in writing of any daily record showing that a HEAF unit serving this emissions unit was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Northwest District Office) within 30 days after the event occurs.

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

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 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)]

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitation: 2.78 lbs PE/hr

Applicable Compliance Method: If required, compliance with the hourly PE limitation above shall be demonstrated in accordance with the methods in OAC rule 3745-17-03(B)(10).

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

1.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) and OAC rule 3745-17-03(B)(1)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 89 Hot End (P047)

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
hot end batch melter w/ three parallel baghouses; unit 89	OAC rule 3745-31-05(C) (PTI # 03-10931)	66.80 tons particulate emissions (PE) per rolling, 365-day period (See A.I.2.a.)
	OAC rule 3745-31-05(A)(3) (PTI # 03-10931)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D). See A.I.2.b. 1.00 lb PE/hr, 4.38 tons PE/yr (See A.I.2.c.) Visible PE from the stacks servicing this emissions unit shall not exceed 0% opacity.
	OAC rule 3745-17-11(B)	See A.I.2.d.
	OAC rule 3745-17-07(A)	See A.I.2.d.
	40 CFR, Part 63, Subpart NNN	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.

2. Additional Terms and Conditions

2.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.

2. Additional Terms and Conditions (continued)

2.b Best available technology" (BAT) 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.

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

2.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).

II. Operational Restrictions

1. The pressure drop across each baghouse shall be maintained within the range of 0.5 - 10.0 inches of water while the emissions unit is in operation.

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

2. The permittee must continuously operate a bag leak detection system.

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) and 40 CFR Part 63.1382(b)(1)]

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) and 40 CFR Part 63.1382(b)(5)]

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) and 40 CFR Part 63.1382(b)(5)]

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) and 40 CFR Part 63.1382(b)(5)]

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across each baghouse on a once per shift basis.

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

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

2. 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]

3. The permittee shall calculate and record the rolling, 365-day summation of the daily PE rates, 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]

4. The permittee must prepare a written operations, maintenance, and monitoring plan. The plan must be submitted to the Director for review and approval as part of the application for a part 70 permit. The plan must 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 part 63.1382;

b. procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each monitoring device according to the manufacturers's instructions; and

c. corrective actions to be taken when add-on control device parameters deviate from the limit(s) established during initial performance tests.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR, Part 63.1386(d)(2)]

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

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 setpoints, 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) and 40 CFR, Part 63.1383(b)]

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) and 40 CFR, Part 63.1383(b)]

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

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. For glass-melting furnaces that are not equipped with continuous glass pull rate monitors, the glass pull rate must be monitored and recorded once per day.

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

8. 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) and 40 CFR, Part 63.1383(m)]

9. 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) and 40 CFR, Part 63.1386(c)]

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) and 40 CFR, Part 63.10]

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) and 40 CFR, Part 63.10]

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

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) and 40 CFR, Part 63.10]

IV. Reporting Requirements

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

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

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 paragraph A.1.c of the General Terms and Conditions of this permit.

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

3. 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; and 40 CFR, Part 63.10]

V. Testing Requirements

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

1.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 sections A.III.2 and 3 of this permit.

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

V. Testing Requirements (continued)

1.b 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) and PTI 03-10931]

1.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 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) and 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) and 40 CFR, Part 63.1384]

VI. Miscellaneous Requirements

1. 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(C)(1) and 40 CFR, Part 63.1382]

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 89 Collection Module A (P048)

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
fiberglass forming module A; Line no. 89	OAC rule 3745-31-05(C) (PTI #03-10931)	66.80 tons particulate emissions (PE) per rolling, 365-day period (See A.I.2.a.)
	OAC rule 3745-31-05(A)(3) (PTI #03-10931)	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 A.I.2.b. 9.99 lbs PE/hr, 42.96 tons PE/yr (See A.I.2.c.) 1.93 lbs NOx /hr, 8.3 tons NOx/yr 1.66 lbs organic compounds (OC)/hr, 7.14 tons OC/yr 9.10 lb carbon monoxide (CO)/hr, 39.13 tons CO/yr 0.80 lb formaldehyde/hr, 3.44 tons formaldehyde/yr 1.0 lb sulfur dioxide (SO2)/hr, 4.30 tons SO2/yr
	40 CFR, Part 63, Subpart NNN	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 0.6 kg of formaldehyde per megagram (1.2 lb of formaldehyde per ton) of glass pulled from each existing rotary spin manufacturing line.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	40 CFR, Part 60, Subpart PPP	See A.I.2.d.
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)	none (See A.II.4.)

2. Additional Terms and Conditions

2.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.

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

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

2.d 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.

II. 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 pressure drop across the scrubber shall be continuously maintained at a value of not less than 10 inches of water at all times while the emissions unit is in operation.

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

3. The scrubber water flow rate shall be continuously maintained at a value of not less than 440 gallons per minute at all times while the emissions unit is in operation.

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

4. 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) and PTI 03-10931]

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(a)(11) 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 63.1382(b)]

II. Operational Restrictions (continued)

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 part 63.1384(a)(9).

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

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 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)]

III. Monitoring and/or Record Keeping Requirements

1. A permittee subject to the provisions of 40 CFR, Part 60, Subpart PPP and uses a wet scrubbing control device to comply with the mass emission standard shall install, calibrate, maintain, and operate monitoring devices that measure the gas pressure drop across each scrubber and the scrubbing liquid flow rate to each scrubber. 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.

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

2. 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 and PTI 03-10931]

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

a. the pressure drop across the scrubber, in inches of water, at least once every 4 hours;

b. the scrubber water flow rate, in gallons per minute, at least once every 4 hours; and

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

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

4. 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]

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

5. The permittee shall calculate and record the rolling, 365-day summation of the daily PE rates, 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]

6. 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) and PTI 03-10931]

7. The permittee must prepare a written operations, maintenance, and monitoring plan. The plan must be submitted to the Director for review and approval as part of the application for a part 70 permit. The plan must 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 part 63.1382;

b. procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each monitoring device according to the manufacturers's instructions; and

c. corrective actions to be taken when add-on control device parameters deviate from the limit(s) established during initial performance tests.

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

8. 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) and 40 CFR Part 63.1383(j)]

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) and 40 CFR Part 63.1383(k)]

10. 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) and 40 CFR Part 63.1383(l)]

11. 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 63.1384; 40 CFR, Part 63, Subpart A; and 40 CFR, Part 63.1382]

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

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) and 40 CFR, Part 63.6]

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) and 40 CFR, Part 63.10]

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) and 40 CFR, Part 63.10]

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) and 40 CFR, Part 63.10]

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month numbers of operating hours restriction of 8600. These deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

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

IV. Reporting Requirements (continued)

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. the static pressure drop across the scrubber; and

b. the scrubber water flow rate.

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

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

3. 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 paragraph A.1.c of the General Terms and Conditions of this permit.

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

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

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

5. The permittee shall submit quarterly reports that include a log of the downtime for the control device and monitoring equipment, when the associated emissions unit was in operation. These reports shall be submitted by March 31, June 30, September 30, and December 31 of each and shall cover the previous calendar quarter.

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

6. 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; and 40 CFR, Part 63.10]

V. Testing Requirements

1. Emissions Testing: 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 3 months after issuance of the permit and within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates: for PE, CO and SO2.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

i. for PE, Methods 1 - 5 of 40 CFR, Part 60, Appendix A. (including the back half of the sampling train);

ii. for NSPS PE standard, Method 5E of 40 CFR, Part 60, Appendix A;

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

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

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

1.d The test(s) shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

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

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

Personnel from the Director (the Ohio EPA, Northwest District Office) shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

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

2. Compliance Methods Requirements: Compliance with the emission limitations in section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

2.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 sections A.III.4 and 5 of this permit.

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

V. Testing Requirements (continued)

2.b Emission Limitations: 9.99 lbs PE/hr and 42.96 tons/yr

Applicable Compliance Method: Compliance with the houlry 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) and PTI 03-10931]

2.c Emission Limitations: 1.66 lbs OC/hr and 7.14 tons/yr

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) and PTI 03-10931]

2.d Emission Limitations: 1.93 lbs NOx/hr and 8.30 tons/yr

Applicable Compliance Method: If required, compliance shall be demonstrated by stack testing conducted with Methods 1 - 4 and 7 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) and PTI 03-10931]

2.e Emission Limitations: 9.10 lbs CO/hr and 39.13 tons/yr

Applicable Compliance Method: Compliance with the emission limitation above shall be based on the results of 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) and PTI 03-10931]

2.f Emission Limitations: 0.80 lb Formaldehyde/hr and 3.44 tons/yr

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) and PTI 03-10931]

V. Testing Requirements (continued)

2.g Emission Limitations: 1.0 lb SO2/hr and 4.30 tons/yr

Applicable Compliance Method: Compliance with the emission limitation above shall be based on the results of 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) and PTI 03-10931]

2.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) and OAC rule 3745-17-03(B)(1)]

2.i Emission Limitations: 11.0 lbs PE/ton of glass pulled (5.5 kg/Mg)

Applicable Compliance Method: 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]

3. 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]

VI. Miscellaneous Requirements

1. 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 part 63.1384(a)(11) 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(C)(1) and 40 CFR Part 63.1382]

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 89 Collection Module B (P049)

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
fiberglass forming module B; Line no. 89	OAC rule 3745-31-05(C) (PTI #03-10931)	66.80 tons particulate emissions (PE) per rolling, 365-day period (See A.I.2.a.)
	OAC rule 3745-31-05(A)(3) (PTI #03-10931)	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 A.I.2.b. 9.02 lbs PE/hr, 38.79 tons PE/yr (See A.I.2.c.) 1.93 lbs NOx /hr, 8.3 tons NOx/yr 1.66 lbs organic compounds (OC)/hr, 7.14 tons OC/yr 9.10 lb carbon monoxide (CO)/hr, 39.13 tons CO/yr 0.80 lb formaldehyde/hr, 3.44 tons formaldehyde/yr 1.0 lb sulfur dioxide (SO2)/hr, 4.30 tons SO2/yr
	40 CFR, Part 63, Subpart NNN	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 0.6 kg of formaldehyde per megagram (1.2 lb of formaldehyde per ton) of glass pulled from each existing rotary spin manufacturing line.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	40 CFR, Part 60, Subpart PPP	See A.I.2.d.
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)	none (See A.II.4.)

2. Additional Terms and Conditions

2.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.

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

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

2.d 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.

II. 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 pressure drop across the scrubber shall be continuously maintained at a value of not less than 10 inches of water at all times while the emissions unit is in operation.

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

3. The scrubber water flow rate shall be continuously maintained at a value of not less than 440 gallons per minute at all times while the emissions unit is in operation.

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

4. 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) and PTI 03-10931]

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(a)(11) 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 63.1382(b)]

II. Operational Restrictions (continued)

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 part 63.1384(a)(9).

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

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 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)]

III. Monitoring and/or Record Keeping Requirements

1. A permittee subject to the provisions of 40 CFR, Part 60, Subpart PPP and uses a wet scrubbing control device to comply with the mass emission standard shall install, calibrate, maintain, and operate monitoring devices that measure the gas pressure drop across each scrubber and the scrubbing liquid flow rate to each scrubber. 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.

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

2. 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 and PTI 03-10931]

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

a. the pressure drop across the scrubber, in inches of water, at least once every 4 hours;

b. the scrubber water flow rate, in gallons per minute, at least once every 4 hours; and

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

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

4. 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]

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

5. The permittee shall calculate and record the rolling, 365-day summation of the daily PE rates, 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]

6. 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) and PTI 03-10931]

7. The permittee must prepare a written operations, maintenance, and monitoring plan. The plan must be submitted to the Director for review and approval as part of the application for a part 70 permit. The plan must 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 part 63.1382;

b. procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each monitoring device according to the manufacturers's instructions; and

c. corrective actions to be taken when add-on control device parameters deviate from the limit(s) established during initial performance tests.

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

8. 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) and 40 CFR Part 63.1383(j)]

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) and 40 CFR Part 63.1383(k)]

10. 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) and 40 CFR Part 63.1383(l)]

11. 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 63.1384; 40 CFR Part 63, Subpart A; and and 40 CFR Part 63.1382]

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

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) and 40 CFR Part 63.6]

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) and 40 CFR Part 63.10]

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) and 40 CFR Part 63.10]

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) and 40 CFR Part 63.10]

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month numbers of operating hours restriction of 8600. These deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

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

IV. Reporting Requirements (continued)

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. the static pressure drop across the scrubber; and

b. the scrubber water flow rate.

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

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

3. 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 paragraph A.1.c of the General Terms and Conditions of this permit.

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

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

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

5. The permittee shall submit quarterly reports that include a log of the downtime for the control device and monitoring equipment, when the associated emissions unit was in operation. These reports shall be submitted by March 31, June 30, September 30, and December 31 of each and shall cover the previous calendar quarter.

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

6. 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 and 40 CFR Part 63.10]

V. Testing Requirements

1. Emissions Testing: 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 3 months after issuance of the permit and within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates: for PE, CO and SO2.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

i. for PE, Methods 1 - 5 of 40 CFR, Part 60, Appendix A. (including the back half of the sampling train);

ii. for NSPS PE standard, Method 5E of 40 CFR, Part 60, Appendix A;

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

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

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

1.d The test(s) shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

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

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

Personnel from the Director (the Ohio EPA, Northwest District Office) shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

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

2. Compliance Methods Requirements: Compliance with the emission limitations in section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

2.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 sections A.III.4 and 5 of this permit.

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

V. Testing Requirements (continued)

2.b Emission Limitations: 9.02 lbs PE/hr, 38.79 tons

Applicable Compliance Method: Compliance with the houlry 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) and PTI 03-10931]

2.c Emission Limitations: 1.66 lbs OC/hr and 7.14 tons/yr

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) and PTI 03-10931]

2.d Emission Limitations: 1.93 lbs NOx/hr and 8.30 tons/yr

Applicable Compliance Method: If required, compliance shall be demonstrated by stack testing conducted with Methods 1 - 4 and 7 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) and PTI 03-10931]

2.e Emission Limitations: 9.10 lbs CO/hr and 39.13 tons/yr

Applicable Compliance Method: Compliance with the emission limitation above shall be based on the results of 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) and PTI 03-10931]

2.f Emission Limitations: 0.80 lb Formaldehyde/hr and 3.44 tons/yr

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) and PTI 03-10931]

V. Testing Requirements (continued)

2.g Emission Limitations: 1.0 lb SO2/hr and 4.30 tons/yr

Applicable Compliance Method: Compliance with the emission limitation above shall be based on the results of 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) and PTI 03-10931]

2.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) and OAC rule 3745-17-03(B)(1)]

2.i Emission Limitations: 11.0 lbs PE/ton of glass pulled (5.5 kg/Mg)

Applicable Compliance Method: 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]

3. 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]

VI. Miscellaneous Requirements

1. 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 part 63.1384(a)(11) 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(C)(1) and 40 CFR Part 63.1382]

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 89 Collection Module C (P050)

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
fiberglass forming module C; Line no. 89	OAC rule 3745-31-05(C) (PTI #03-10931)	66.80 tons particulate emissions (PE) per rolling, 365-day period (See A.I.2.a.)
	OAC rule 3745-31-05(A)(3) (PTI #03-10931)	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 A.I.2.b. 7.76 lbs PE/hr, 33.37 tons PE/yr (See A.I.2.c.) 1.93 lbs NOx /hr, 8.3 tons NOx/yr 1.66 lbs organic compounds (OC)/hr, 7.14 tons OC/yr 9.10 lb carbon monoxide (CO)/hr, 39.13 tons CO/yr 0.80 lb formaldehyde/hr, 3.44 tons formaldehyde/yr 1.0 lb sulfur dioxide (SO2)/hr, 4.30 tons SO2/yr
	40 CFR, Part 63, Subpart NNN	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 0.6 kg of formaldehyde per megagram (1.2 lb of formaldehyde per ton) of glass pulled from each existing rotary spin manufacturing line.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	40 CFR, Part 60, Subpart PPP	See A.I.2.d.
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)	none (See A.II.4.)

2. Additional Terms and Conditions

2.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.

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

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

2.d 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.

II. 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 pressure drop across the scrubber shall be continuously maintained at a value of not less than 10 inches of water at all times while the emissions unit is in operation.

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

3. The scrubber water flow rate shall be continuously maintained at a value of not less than 440 gallons per minute at all times while the emissions unit is in operation.

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

4. 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) and PTI 03-10931]

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(a)(11) 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 63.1382(b)]

II. Operational Restrictions (continued)

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 part 63.1384(a)(9).

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

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 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)(9)]

III. Monitoring and/or Record Keeping Requirements

1. A permittee subject to the provisions of 40 CFR, Part 60, Subpart PPP and uses a wet scrubbing control device to comply with the mass emission standard shall install, calibrate, maintain, and operate monitoring devices that measure the gas pressure drop across each scrubber and the scrubbing liquid flow rate to each scrubber. 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.

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

2. 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 and PTI 03-10931]

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

a. the pressure drop across the scrubber, in inches of water, at least once every 4 hours;

b. the scrubber water flow rate, in gallons per minute, at least once every 4 hours; and

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

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

4. 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]

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

5. The permittee shall calculate and record the rolling, 365-day summation of the daily PE rates, 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]

6. 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) and PTI 03-10931]

7. The permittee must prepare a written operations, maintenance, and monitoring plan. The plan must be submitted to the Director for review and approval as part of the application for a part 70 permit. The plan must 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 part 63.1382;

b. procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each monitoring device according to the manufacturers's instructions; and

c. corrective actions to be taken when add-on control device parameters deviate from the limit(s) established during initial performance tests.

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

8. 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) and 40 CFR Part 63.1383(j)]

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) and 40 CFR Part 63.1383(k)]

10. 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) and 40 CFR Part 63.1383(l)]

11. 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 63.1384; 40 CFR Part 63, Subpart A and 40 CFR Part 63.1382]

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

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) and 40 CFR Part 63.6]

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) and 40 CFR Part 63.10]

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) and 40 CFR Part 63.10]

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) and 40 CFR Part 63.10]

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month numbers of operating hours restriction of 8600. These deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

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

IV. Reporting Requirements (continued)

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. the static pressure drop across the scrubber; and

b. the scrubber water flow rate.

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

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

3. 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 paragraph A.1.c of the General Terms and Conditions of this permit.

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

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

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

5. The permittee shall submit quarterly reports that include a log of the downtime for the control device and monitoring equipment, when the associated emissions unit was in operation. These reports shall be submitted by March 31, June 30, September 30, and December 31 of each and shall cover the previous calendar quarter.

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

6. 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 and 40 CFR Part 63.10]

V. Testing Requirements

1. Emissions Testing: 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 3 months after issuance of the permit and within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates: for PE, CO and SO2.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

i. for PE, Methods 1 - 5 of 40 CFR, Part 60, Appendix A. (including the back half of the sampling train);

ii. for NSPS PE standard, Method 5E of 40 CFR, Part 60, Appendix A;

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

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

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

1.d The test(s) shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

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

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

Personnel from the Director (the Ohio EPA, Northwest District Office) shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

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

2. Compliance Methods Requirements: Compliance with the emission limitations in section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

2.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 sections A.III.4 and 5 of this permit.

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

V. Testing Requirements (continued)

2.b Emission Limitations: 7.76 lbs PE/hr, 33.37 tons PE/yr

Applicable Compliance Method: Compliance with the houlry 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) and PTI 03-10931]

2.c Emission Limitations: 1.66 lbs OC/hr and 7.14 tons/yr

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) and PTI 03-10931]

2.d Emission Limitations: 1.93 lbs NOx/hr and 8.30 tons/yr

Applicable Compliance Method: If required, compliance shall be demonstrated by stack testing conducted with Methods 1 - 4 and 7 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) and PTI 03-10931]

2.e Emission Limitations: 9.10 lbs CO/hr and 39.13 tons/yr

Applicable Compliance Method: Compliance with the emission limitation above shall be based on the results of 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) and PTI 03-10931]

2.f Emission Limitations: 0.80 lb Formaldehyde/hr and 3.44 tons/yr

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) and PTI 03-10931]

V. Testing Requirements (continued)

2.g Emission Limitations: 1.0 lb SO2/hr and 4.30 tons/yr

Applicable Compliance Method: Compliance with the emission limitation above shall be based on the results of 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) and PTI 03-10931]

2.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) and OAC rule 3745-17-03(B)(1)]

2.i Emission Limitations: 11.0 lbs PE/ton of glass pulled (5.5 kg/Mg)

Applicable Compliance Method: 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) and 40 CFR PART 60 Subpart PPP]

3. 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]

VI. Miscellaneous Requirements

1. 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 part 63.1384(a)(11) 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(C)(1) and 40 CFR Part 63.1382]

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 89 - Curing Oven (P051)

Activity Description: Fiber glass curing oven.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
fiberglass cure oven; unit 89	OAC rule 3745-31-05(C) (PTI #03-10931)	66.80 tons particulate emissions (PE) per rolling, 365-day period (See A.I.2.a.)
	OAC rule 3745-31-05(A)(3) (PTI #03-10931)	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), 3745-21-08(B), and 3745-23-06(B). See A.I.2.b. 1.63 lbs PE/hr, 7.01 tons PE/yr (See A.I.2.c.) 10.54 lbs NOx /hr, 45.32 tons NOx/yr 1.21 lbs organic compounds (OC)/hr, 5.20 tons OC/yr 2.01 lbs carbon monoxide (CO)/hr, 8.64 tons CO/yr 0.50 lb formaldehyde/hr, 2.15 tons formaldehyde/yr 0.50 lb sulfur dioxide (SO2)/hr, 2.15 tons SO2/yr
	40 CFR, Part 63, Subpart NNN	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 0.6 kg of formaldehyde per megagram (1.2 lb of formaldehyde per ton) of glass pulled.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	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.
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)	Exempt, pursuant to OAC rule 3745-21-07 (G)(9)(c) [see A.II.3].
	OAC rule 3745-18-06(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).
	OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.I.2.d.

2. Additional Terms and Conditions

2.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.

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

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

2.d The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 03-10931.

II. 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 average combustion temperature within the thermal incinerator, for any 3-hour block of time, when the emissions unit is in operation, shall not be less than 1550 degrees Fahrenheit measured at the bed center.

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

II. Operational Restrictions (continued)

3. 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 photochemically reactive material.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-21-07(G)(9)]

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 part 63.1384(a)(12).

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

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)]

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

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

a. All 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was less than 1550 degrees Fahrenheit measured at the bed center.

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

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

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

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;

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) and OAC rule 3745-21-07(G)(9)]

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 record the rolling, 365-day summation of the daily PE rates, 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 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) and PTI 03-10931]

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

6. The permittee must prepare a written operations, maintenance, and monitoring plan. The plan must be submitted to the Administrator for review and approval as part of the application for a part 70 permit. The plan must include the following information:

a. Procedures for the proper operation and maintenance of process modifications used to meet the emission limits in 40 CFR part 63.1382;

b. Procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each monitoring device according to the manufacturers's instructions; and

c. Corrective actions to be taken when process parameters deviate from the limit(s) established during initial performance tests.

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

7. The permittee must inspect the 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) and 40 CFR Part 63.1383(a)]

8. 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) and 40 CFR Part 63.1383(j)]

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) and 40 CFR Part 63.1383(k)]

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

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) and 40 CFR Part 63.1383(l)]

11. 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 63.1384; 40 CFR Part 63 Subpart A and 40 CFR Part 63.1382)]

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) and 40 CFR Part 63.6]

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) and 40 CFR Part 63.10]

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) and 40 CFR Part 63.10]

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

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) and 40 CFR Part 63.10]

IV. Reporting Requirements

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

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

b. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator did not comply with the temperature limitation specified above; and

c. 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 paragraph A.1.c of the General Terms and Conditions of this permit.

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

2. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a a noncomplying material (see section A.II.3 of this permit) was employed in this emissions unit. These deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

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

3. The permittee shall submit quarterly reports that include a log of the downtime for the control device and monitoring equipment, when the associated emissions unit was in operation. These reports shall be submitted by March 31, June 30, September 30, and December 31 of each and shall cover the previous calendar quarter.

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

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 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 3745-77-07(C)(1); 40 CFR Part 63.1386 and 40 CFR Part 63.10]

V. Testing Requirements

1. Emissions Testing: 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 3 months after issuance of the permit and within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates: for PE and NOx.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

i. for PE, Methods 1- 5 of 40 CFR, Part 60, Appendix A. (including the back half of the sampling train);

ii. for NSPS PE standard, Method 5E of 40 CFR, Part 60, Appendix A; and

iii. for NOx, Methods 1 - 4 and 7 of 40 CFR, Part 60, Appendix A.

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

1.d The test(s) shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the administrator.

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

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

Personnel from the Director (the Ohio EPA, Northwest District Office) shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Director (formaldehyde) 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 Director (the Ohio EPA, Northwest District Office).

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

2. Compliance Methods Requirements: Compliance with the emission limitations in section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

2.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 sections A.III.2 and 3 of this permit.

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

V. Testing Requirements (continued)

2.b Emission Limitations: 1.63 lbs PE/hr and 7.01 tons/yr

Applicable Compliance Method: 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) and PTI 03-10931]

2.c Emission Limitations: 1.21 lbs OC/hr and 5.20 tons OC/yr

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) and PTI 03-10931]

2.d Emission Limitations: 10.54 lbs NOx/hr and 45.32 tons/yr

Applicable Compliance Method: Compliance shall be demonstrated based on the results of stack testing conducted in accordance with Methods 1 - 4 and 7 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) and PTI 03-10931]

2.e Emission Limitations: 2.01 lbs CO/hr and 8.64 tons/yr

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) and PTI 03-10931]

2.f Emission Limitations: 0.50 lb formaldehyde/hr and 2.15 tons formaldehyde/yr

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) and PTI 03-10931]

V. Testing Requirements (continued)

2.g Emission Limitations: 0.50 lb SO2/hr and 2.15 tons/yr

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) and PTI 03-10931]

2.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) and OAC rule 3745-17-03(B)(1)]

2.i Emission Limitations: 11.0 lbs PE/ton of glass pulled (5.5 kg/Mg)

Applicable Compliance Method: 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]

3. 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]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 89 Cooling Table (P052)

Activity Description: Cooling table.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
fiberglass cooling; Line no. 89	OAC rule 3745-31-05(C) (PTI #03-10931)	66.80 tons particulate emissions (PE) per rolling, 365-day period (See A.I.2.a.)
	OAC rule 3745-31-05(A)(3) (PTI #03-10931)	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 A.I.2.b. 1.53 lbs PE/hr, 6.58 tons PE/yr (See A.I.2.c.) 0.66 lbs organic compounds (OC)/hr, 2.84 tons OC/yr 0.35 lb formaldehyde/hr, 1.51 tons formaldehyde/yr
	40 CFR, Part 63, Subpart NNN	The permittee shall not discharge or cause to be discharged into the atmosphere in excess of 0.6 kg of formaldehyde per megagram (1.2 lb of formaldehyde per ton) of glass pulled from each existing rotary spin manufacturing line.
	40 CFR, Part 60, Subpart PPP	See A.I.2.d.
	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.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)	none (See A.II.4.)

2. Additional Terms and Conditions

2.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.

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

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

2.d 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.

II. 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 pressure drop across the scrubber shall be continuously maintained at a value of not less than 8.5 inches of water at all times while the emissions unit is in operation.

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

3. The scrubber water flow rate shall be continuously maintained at a value of not less than 135 gallons per minute at all times while the emissions unit is in operation.

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

4. 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) and PTI 03-10931]

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(a)(11) 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 63.1382(b)]

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 part 63.1384(a)(9).

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

II. Operational Restrictions (continued)

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 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)]

III. Monitoring and/or Record Keeping Requirements

1. A permittee subject to the provisions of 40 CFR, Part 60, Subpart PPP and uses a wet scrubbing control device to comply with the mass emission standard shall install, calibrate, maintain, and operate monitoring devices that measure the gas pressure drop across each scrubber and the scrubbing liquid flow rate to each scrubber. 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.

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

2. 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 and PTI 03-10931]

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

a. the pressure drop across the scrubber, in inches of water, at least once every 4 hours;

b. the scrubber water flow rate, in gallons per minute, at least once every 4 hours; and

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

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

4. 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]

5. The permittee shall calculate and record the rolling, 365-day summation of the daily PE rates, 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]

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

6. 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) and PTI 03-10931]

7. The permittee must prepare a written operations, maintenance, and monitoring plan. The plan must be submitted to the Director for review and approval as part of the application for a part 70 permit. The plan must 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 part 63.1382;

b. procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each monitoring device according to the manufacturers's instructions; and

c. corrective actions to be taken when add-on control device parameters deviate from the limit(s) established during initial performance tests.

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

8. 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) and 40 CFR Part 63.1383(j)]

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) and 40 CFR Part 63.1383(k)]

10. 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) and 40 CFR Part 63.1383(l)]

11. 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 63.1384 40 CFR Part 63, Subpart A and 40 CFR Part 63.1382]

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

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) and 40 CFR Part 63.6]

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) and 40 CFR Part 63.10]

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) and 40 CFR Part 63.10]

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. 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) and 40 CFR Part 63.10]

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month numbers of operating hours restriction of 8600. These deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

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

IV. Reporting Requirements (continued)

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. the static pressure drop across the scrubber; and

b. the scrubber water flow rate.

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

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

3. 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 paragraph A.1.c of the General Terms and Conditions of this permit.

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

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

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

5. The permittee shall submit quarterly reports that include a log of the downtime for the control device and monitoring equipment, when the associated emissions unit was in operation. These reports shall be submitted by March 31, June 30, September 30, and December 31 of each and shall cover the previous calendar quarter.

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

6. 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 and 40 CFR Part 63.10]

V. Testing Requirements

1. Emissions Testing: 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 3 months after issuance of the permit and within 6 months prior to permit expiration.

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

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

i. for PE, Methods 1- 5 of 40 CFR, Part 60, Appendix A. (including the back half of the sampling train); and

ii. for NSPS PE standard, Method 5E of 40 CFR, Part 60, Appendix A.

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

V. Testing Requirements (continued)

1.d The test(s) shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

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

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

Personnel from the Director (the Ohio EPA, Northwest District Office) shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Director (formaldehyde) 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 Director (the Ohio EPA, Northwest District Office).

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

2. Compliance Methods Requirements: Compliance with the emission limitations in section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

2.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 sections A.III.4 and 5 of this permit.

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

2.b Emission Limitations: 1.53 lbs PE/hr and 6.58 tons/yr

Applicable Compliance Method: Compliance with the houlry 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) and PTI 03-10931]

2.c Emission Limitations: 0.66 lbs OC/hr and 2.84 tons/yr

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) and PTI 03-10931]

V. Testing Requirements (continued)

2.d Emission Limitations: 0.35 lb Formaldehyde/hr and 1.51 tons/yr

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) and PTI 03-10931]

2.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) and OAC rule 3745-17-03(B)(1)]

2.f Emission Limitations: 11.0 lbs PE/ton of glass pulled (5.5 kg/Mg)

Applicable Compliance Method: 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]

3. 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]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 89 Internal Cullet Silo (P054)

Activity Description: Internal cullet silo.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
fiberglass internal cullet silo; unit 89	OAC rule 3745-31-05(C) (PTI #03-10931)	66.80 tons particulate emissions (PE) per rolling, 365-day period (See A.I.2.a.)
	OAC rule 3745-31-05(A)(3) (PTI #03-10931)	See A.I.2.b. 0.1 lb PE/hr, 0.44 ton PE/yr (See A.I.2.c.) Visible PE from the stacks servicing this emissions unit shall not exceed 0% opacity. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
	OAC rule 3745-17-07(A)	See A.I.2.d.
	OAC rule 3745-17-11(B)	See A.I.2.d.

2. Additional Terms and Conditions

2.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.

2.b "Best Available Technology" (BAT) for this emissions unit has been determined to be the use of a baghouse.

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

2.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).

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 0.5 - 10 inches of water while the emissions unit is in operation.

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

III. Monitoring and/or Record Keeping Requirements

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

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

2. 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 record the rolling, 365-day summation of the daily PE rates, 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]

IV. Reporting Requirements

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

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

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 paragraph A.1.c of the General Terms and Conditions of this permit.

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

V. Testing Requirements

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

V. Testing Requirements (continued)

2.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 sections A.III.2 and 3 of this permit.

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

2.b Emission Limitations: 0.10 lb PE/hr and 0.44 ton/yr

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]

2.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]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 89 External Cullet Silo (P055)

Activity Description: External cullet silo.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
fiberglass internal cullet silo; unit 89	OAC rule 3745-31-05(C) (PTI #03-10931)	66.80 tons particulate emissions (PE) per rolling, 365-day period (See A.I.2.a.)
	OAC rule 3745-31-05(A)(3) (PTI #03-10931)	See A.I.2.b. 0.1 lb PE/hr, 0.44 ton PE/yr (See A.I.2.c.) Visible PE from the stacks servicing this emissions unit shall not exceed 0% opacity. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
	OAC rule 3745-17-07(A)	See A.I.2.d.
	OAC rule 3745-17-11(B)	See A.I.2.d.

2. Additional Terms and Conditions

2.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.

2.b "Best Available Technology" (BAT) for this emissions unit has been determined to be the use of a baghouse.

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

2.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).

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 0.5 - 10 inches of water while the emissions unit is in operation.

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

III. Monitoring and/or Record Keeping Requirements

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

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

2. 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]

3. The permittee shall calculate and record the rolling, 365-day summation of the daily PE rates, 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]

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

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

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

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

5. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from at least 5 days per week to weekly readings if the following conditions are met:

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

b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.4.

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

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

IV. Reporting Requirements

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

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

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 paragraph A.1.c of the General Terms and Conditions of this permit.

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

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)]

V. Testing Requirements

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

2.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 sections A.III.2 and 3 of this permit.

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

V. Testing Requirements (continued)

2.b Emission Limitations: 0.10 lb PE/hr and 0.44 ton/yr

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 (540 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]

2.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]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 87 - Curing Oven (P093)

Activity Description: Fiber glass curing oven. (formerly P319)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
line 87 curing operation	OAC rule 3745-31-05(A)(3) (PTI 03-17015)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). 1.78 pounds (lbs) particulate matter of 10 microns or less (PM10)/hour (hr), 7.80 tons per year (tpy) PM10 (See A.I.2.a) 4.37 lbs carbon monoxide (CO)/hr, 19.14 tpy CO 2.88 lbs organic compounds (OC)/hr, 12.61 tpy OC (See A.I.2.g) 3.66 lbs nitrogen oxide (NOx)/hr, 16.03 tpy NOx 0.09 lb sulfur dioxide (SO2)/hr, 0.39 tpy SO2 0.82 lb formaldehyde/hr, 3.59 tpy formaldehyde
	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from the stack(s) serving this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	40 CFR Part 63, Subpart NNN	See A.I.2.e
	OAC rule 3745-21-07(G)(1)	None, pursuant to OAC rule 3745-21-07(G)(9)(c) (see A.I.2.f).
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-23-06(B)	See A.I.2.d.
	OAC rule 3745-21-08(B)	See .I.2.c.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-18-06(E)	See A.I.2.b.

2. Additional Terms and Conditions

2.a All particulate matter emissions are PM10.

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

2.c The permittee has satisfied the "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.

2.d The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(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 February 14, 2005, OAC rule 3745-23-06 was rescinded; 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 U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.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 Part 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 Part 63.2)

2.f This emissions unit is not subject to the requirements of 3745-21-07(G)(1) because it uses a liquid organic material that is exempted from the requirements under 3745-21-07(G)(9)(c).

2.g All OC are volatile organic compounds (VOC's).

II. 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 photochemically reactive material.

III. Monitoring and/or Record Keeping 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 03-17015]

2. Notwithstanding the frequency of reporting requirements specified in section A.IV, 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:

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

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

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

[Authority for term: OAC rule 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 photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

IV. 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 noncomplying material (see section A.II.1) was employed in this emissions unit. These deviation reports shall submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

V. Testing Requirements

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

1.a Emission Limitations: 1.78 lbs PM10/hr, 7.80 tons PM10/yr

Applicable Compliance Method: The hourly allowable PM10 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) and PTI 03-17015]

1.b Emission Limitations: 4.37 lbs CO/hr, 19.14 tons CO/yr

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) and PTI 03-17015]

1.c Emission Limitations: 2.88 lbs OC/hr, 12.61 tons OC/yr

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) and PTI 03-17015]

V. Testing Requirements (continued)

1.d Emission Limitations: 3.66 lbs NOx/hr, 16.03 tons NOx/yr

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) and PTI 03-17015]

1.e Emission Limitations: 0.09 lb SO2/hr, 0.39 ton SO2/yr

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) and PTI 03-17015]

1.f Emission Limitations: 0.82 lb formaldehyde/hr, 3.59 tons formaldehyde/yr

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) and PTI 03-17015]

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

Applicable Compliance Method: 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) and PTI 03-17015]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
line 87 curing operation	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 84 - Curing Oven (P094)

Activity Description: Fiber glass curing oven. (formerly P318)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
line 84 curing operation	OAC rule 3745-31-05(A)(3) (PTI 03-17015)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). 0.76 pound (lb) particulate matter of 10 microns or less (PM10)/hour (hr), 3.33 tons per year (tpy) PM10 (See A.I.2.a) 1.86 lbs carbon monoxide (CO)/hr, 8.15 tpy CO 1.23 lbs organic compounds (OC)/hr, 5.39 tpy OC (See A.I.2.g) 1.56 lbs nitrogen oxide (NOx)/hr, 6.83 tpy NOx 0.04 lb sulfur dioxide (SO2)/hr, 0.18 tpy SO2 0.35 lb formaldehyde/hr, 1.53 tpy formaldehyde
	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from the stack(s) serving this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	40 CFR Part 63, Subpart NNN	See A.I.2.e.
	OAC rule 3745-21-07(G)(1)	None, pursuant to OAC rule 3745-21-07(G)(9)(c) (see A.I.2.f).
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-23-06(B)	See A.I.2.d.
	OAC rule 3745-21-08(B)	See A.I.2.c.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-18-06(E)	See A.I.2.b.

2. Additional Terms and Conditions

2.a All particulate matter emissions are PM10.

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

2.c The permittee has satisfied the "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.

2.d The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(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 February 14, 2005, OAC rule 3745-23-06 was rescinded; 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 U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.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, Part 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, Part 63.2)

2.f This emissions unit is not subject to the requirements of 3745-21-07(G)(1) because it uses a liquid organic material that is exempted from the requirements under 3745-21-07(G)(9)(c).

2.g All OC are volatile organic compounds (VOC's).

II. 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 photochemically reactive material.

III. Monitoring and/or Record Keeping 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 03-17015]

2. Notwithstanding the frequency of reporting requirements specified in section A.IV, 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:

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

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

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

[Authority for term: OAC rule 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 photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

IV. 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 noncomplying material (see section A.II.1) was employed in this emissions unit. These deviation reports shall submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

V. Testing Requirements

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

1.a Emission Limitations: 0.76 lb PM10/hr, 3.33 tons PM10/yr

Applicable Compliance Method: The hourly allowable PM10 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) and PTI 03-17015]

1.b Emission Limitations: 1.86 lbs CO/hr, 8.15 tons CO/yr

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) and PTI 03-17015]

1.c Emission Limitations: 1.23 lbs OC/hr, 5.39 tons OC/yr

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) and PTI 03-17015]

V. Testing Requirements (continued)

1.d Emission Limitations: 1.56 lbs NOx/hr, 6.83 tons NOx/yr

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) and PTI 03-17015]

1.e Emission Limitations: 0.04 lb SO2/hr, 0.18 ton SO2/yr

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) and PTI 03-17015]

1.f Emission Limitations: 0.35 lb formaldehyde/hr, 1.53 tons formaldehyde/yr

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) and PTI 03-17015]

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

Applicable Compliance Method: 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) and PTI 03-17015]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Unit 85 - Curing Oven (P095)

Activity Description: Fiber glass curing oven. (formerly P317)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
line 85 curing operation	OAC rule 3745-31-05(A)(3) (PTI 03-17015)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). 0.76 pound (lb) particulate matter of 10 microns or less (PM10)/hour (hr), 3.33 tons per year (tpy) PM10 (See A.I.2.a) 1.86 lbs carbon monoxide (CO)/hr, 8.15 tpy CO 1.23 lbs organic compounds (OC)/hr, 5.39 tpy OC (See A.I.2.g) 1.56 lbs nitrogen oxide (NOx)/hr, 6.83 tpy NOx 0.04 lb sulfur dioxide (SO2)/hr, 0.18 tpy SO2 0.35 lb formaldehyde/hr, 1.53 tpy formaldehyde
	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from the stack(s) serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.
	40 CFR Part 63, Subpart NNN	See A.I.2.e
	OAC rule 3745-21-07(G)(1)	None, pursuant to OAC rule 3745-21-07(G)(9)(c) (see A.I.2.f).
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-23-06(B)	See A.I.2.d.
	OAC rule 3745-21-08(B)	See A.I.2.c.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-18-06(E)	See A.I.2.b.

2. Additional Terms and Conditions

2.a All particulate matter emissions are PM10.

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

2.c The permittee has satisfied the "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.

2.d The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(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 February 14, 2005, OAC rule 3745-23-06 was rescinded; 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 U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.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, Part 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, Part 63.2)

2.f This emissions unit is not subject to the requirements of 3745-21-07(G)(1) because it uses a liquid organic material that is exempted from the requirements under 3745-21-07(G)(9)(c).

2.g All OC are volatile organic compounds (VOC's).

II. 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 photochemically reactive material.

III. Monitoring and/or Record Keeping 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 03-17015]

2. Notwithstanding the frequency of reporting requirements specified in section A.IV, 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:

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

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

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

[Authority for term: OAC rule 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 photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

IV. 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 noncomplying material (see section A.II.1) was employed in this emissions unit. These deviation reports shall submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

V. Testing Requirements

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

1.a Emission Limitations: 0.76 lb PM10/hr, 3.33 tons PM10/yr

Applicable Compliance Method: The hourly allowable PM10 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) and PTI 03-17015]

1.b Emission Limitations: 1.86 lbs CO/hr, 8.15 tons CO/yr

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) and PTI 03-17015]

1.c Emission Limitations: 1.23 lbs OC/hr, 5.39 tons OC/yr

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) and PTI 03-17015]

V. Testing Requirements (continued)

1.d Emission Limitations: 1.56 lbs NOx/hr, 6.83 tons NOx/yr

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) and PTI 03-17015]

1.e Emission Limitations: 0.04 lb SO2/hr, 0.18 ton SO2/yr

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) and PTI 03-17015]

1.f Emission Limitations: 0.35 lb formaldehyde/hr, 1.53 tons formaldehyde/yr

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) and PTI 03-17015]

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

Applicable Compliance Method: 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) and PTI 03-17015]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process Water Treatment (Z028)

Activity Description: Process water treatment pond (changed to unit P801)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
process water storage pond	OAC rule 3745-21-07(G)	none (See A.II.1.)

2. Additional Terms and Conditions

None

II. 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)]

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain the following information each month for this emissions unit:

1.a the company identification for each liquid organic material employed; and

1.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)]

IV. 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 paragraph A.1.c of the General Terms and Conditions of this permit.

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

V. Testing Requirements

None

VI. Miscellaneous Requirements

1. The permittee installed this emissions unit in 1974 without first applying for and obtaining a permit to install (PTI), in violation of OAC rule 3745-31-02. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a complete permit to install application within 2 months following the issuance of this permit.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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Statement of Basis For Title V Permit

Part I - General	
Company Name	Johns Manville Plant #8
Premise Number	03-20-01-0005
What makes this facility a Title V facility?	NOx, CO, and VOC, HAP, PE
Has each insignificant emissions unit been reviewed to confirm it meets the definition in OAC rule 3745-77-01 (U)?	Yes
Were there any "common control" issues associated with this facility? If yes, provide a summary of those issues and explain how the DAPC decided to resolve them.	No
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a minor permit modification per OAC rule 3745-77-08(C)(1)	N/A
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a significant permit modification per OAC rule 3745-77-08(C)(3)	Emissions unit P093, P094 & P095 PTI 03-17015. HEAF control and associated operational restriction, monitoring, record keeping and reporting requirements being removed from these emissions units. These emissions units were previously permitted at Johns Manville Plant 2 (03-20-01-0003) emissions units P017, P018 & P019 but the facility is being permitted under one premise number & this is the first step in that process. This significant modification is being issued without the additional minor modification because of time constraints.
Please identify the affected unit(s)and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a reopening per OAC rule 3745-77-08(D)	N/A
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document resulting from a renewal per OAC rule 3745-77-08(E)	N/A

Part II (State and Federally Enforceable Requirements)			
Term and Condition (paragraph)	Basis		Comments
	SIP (3745-)	Other	

C **Instructions for Part II:**
Each paragraph in Part II must be identified and the remainder of the table completed. If the SIP (not including 31-05) is the basis for the term and condition, identify the specific rule. If the SIP is not the basis for the term and condition, place an "N" in the column under "SIP." If the basis for the term and condition is something other than the SIP, including 3745-31-05, NSPS or MACT, a "Y" should be noted in the "Other" column, and if not, an "N" should be noted. Whether the basis for the term and condition is the "SIP" or "Other," an explanation of each term and condition in Part II must be provided in the "Comments" section.

Part III (Requirements Within the State and Federally Enforceable Section)

Any unusual requirements or aspects of the terms and conditions in Part III that are not self-explanatory should be explained in the appropriate comment field or in a paragraph following the table for Part III.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
P001, P008, P013, P015	10.0 lbs PE/hr*	17-11(B)(1)	N	Y	N	N	N	N	N	N	N	N	N	N	ND- *The uncontrolled mass rate of particulate emissions (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 1 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 permitte has agreed to accept the PE limitation stated above (less than 10 lbs/hr). CAM is not currently applicable

P005	5.85 lbs PE/hr	17-11(B)(1)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	OR-maintain bag house pressure drop CAM is not currently applicable
P012	8.10 lbs PE/hr	n	Y	N	N	Y	N	N	Y	N	Y	N	Y	N	Basis- OAC rule 3745-31-05(A)(3) All terms and conditions have been transferred from PTI 03-08472.
P029 P043, P044	1.90 lbs PE/hr 2.78 lbs PE/hr	17-11(B)(1)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	OR-must advance HEAF filter @15 minute intervals while emissions unit is operating. Appropriate monitoring, record keeping, and reporting requirements have been specified. CAM is not currently applicable.
P047, P048, P049, P050, P051, P052, P054, P055	66.8 tons PE per rolling 365-day period	n	y	n	n	y	n	n	y	n	y	n	y		Basis-OAC rule 3745-31-05(D) All terms and conditions have been transferred from the PTI
P047 P054, P055	1.0 lbs PE/hr, 4.38 tpy PE 0.1 lbs PE/hr, 0.44 tpy PE	n	y	n	y	y	n	n	y	n	y	n	y	n	Basis-OAC rule 3745-31-05(A)(3) All terms and conditions have been transferred from the PTI 03-10931. OR-maintain pressure drop across the bag house. Appropriate monitoring, record keeping, and reporting requirements have been specified.

P047	0.5 lb particulate matter/ton of glass pulled		y	n	y	y	n	n	y	n	y	n	y	y	Basis-40 CFR Part 63, Subpart NNN All terms and conditions have been transferred from PTI 03-10931 OR- continuously operate bag leak detection system, initiate corrective action within 1 hour of exceeding established average glass pull rate, implement QIP consistent with CAM when glass pull rate is exceeded by 20%, operate furnace so glass pull rate is not exceeded by 20% of average glass pull rate. Appropriate monitoring, record keeping, and reporting requirements have been specified. Misc-permittee must implement a Quality Improvement Plant (QIP) consistent with the CAM provisions of 40 CFR part 64, Subpart D when the bag leak detection system alarm is sounded for more than 5% of the total operating time in a 6-month block reporting period.
P012 P013 P047, P048, P049, P050, P051, P052, P054, P055	none	17-11(B)	n	y	n	n	n	n	n	n	n	n	n	n	ND-The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). M,R,Rp,ET - no emission limitation established CAM is currently not applicable
P048 P049 P050	9.99 lbs PE/hr, 42.96 tpy PE 9.02 lbs PE/hr, 38.79 tpy 7.76 lbs PE/hr, 33.37 tpy	n	y	n	y	y	n	n	y	n	y	n	y	n	Basis-OAC rule 3745-31-05(A)(3) All terms and conditions have been transferred from PTI 03-10931. OR- maintain scrubber pressure drop and water flow rate. Hours of operation are restricted to 8600 hours. Appropriate monitoring, record keeping, and reporting requirements have been specified.

P048, P049, P050	1.93 lbs Nox/hr, 8.30 tpy 1.66 lbs OC/hr, 7.14 tpy 0.80 lb formaldehyde/hr, 3.44 tpy 1.0 lbs SO2/hr, 4.3 tpy	n	y	n	y	y	n	n	y	n	y	n	y	n	Basis-OAC rule 3745-31-05(A)(3) All terms and conditions have been transferred from PTI 03-10931. OR- Hours of operation are restricted to 8600 hours. Appropriate monitoring, record keeping, and reporting requirements have been specified.
P048, P049, P050, P052	1.2 lbs formaldehyde/ton of glass pulled	n	y	n	y	y	n	n	y	n	y	n	y	y	Basis-40 CFR Part 63, Subpart NNN OR-permittee must use a binder formulation that does not vary from the specification and operating range established and used during the performance test, 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 and the permittee must operate the scrubber such that the monitored parameter is not outside the limits established during the performance test for more than 10% of the total operating time in a 6-month block reporting period. Appropriate monitoring, record keeping, and reporting requirements have been specified. Misc-permittee must implement a Quality Improvement Plant (QIP) consistent with the CAM provisions of 40 CFR part 64, Subpart D when any scrubber parameter is outside the limit(s) established during the performance test for more than 5% of the total operating time in a 6-month block reporting period.

P048, P049, P050, P052	11.0 lbs PE/ton of glass pulled	n	y	n	y	y	n	n	y	n	y	n	y	y	Basis-40 CFR Part 63, Subpart PPP OR- maintain scrubber water flow rate and pressure drop Appropriate monitoring, record keeping, and reporting requirements have been specified.
P047	0% opacity	n	y	n	n	n	n	n	n	n	n	n	y	n	Basis-OAC rule 3745-31-05(A)(3) All terms and conditions have been transferred from PTI 03-10931 M,R,Rp - ET adequate to show compliance with VE limitation. VE are also minimized by scrubber control system CAM is currently not applicable
P008, P015, P029, P043, P044, P093, P094, P095 Z009, Z010,	20% opacity as a 6-minute average	17-07(A)	n	n	n	y	n	n	y	n	y	n	y	n	M, R, Rp- Daily and/or weekly VE checks are being required to ensure compliance with the opacity limit. CAM is currently not applicable
P005 P048, P049, P050, P051, P052	20% opacity as a 6-minute average	17-07(A)	n	n	n	n	n	n	n	n	n	n	y	n	M,R,Rp - ET adequate to show compliance with VE limitation. VE are also minimized by scrubber control system CAM is currently not applicable
P008, P048, P049, P050, P052, Z009, Z010, Z028	none	21-07(G)	n	n	y	y	n	n	y	n	y	n	n	n	OR-the use of photochemically reactive material in this emissions unit is prohibited.

P051	10.54 lbs NOx/hr, 45.32 tpy 1.63 lbs PE/hr, 7.01 tpy 2.01 lb COhr, 8.64 tpy 0.5 lbs SO2/hr, 2.15 tpy 1.21 lbs Oc/hr, 5.20 tpy 0.50 lb formaldehyde, 2.15 tpy	n	y	n	y	y	n	n	y	n	y	n	y	n	Basis-OAC rule 3745-31-05(A)(3) All terms and conditions have been transferred from PTI 03-10931. OR- Hours of operation are restricted to 8600 hours. Appropriate monitoring, record keeping, and reporting requirements have been specified.
P051	1.2 lbs formaldehyde/ton of glass pulled	n	y	n	y	y	n	n	y	n	y	n	y	n	Basis-40 CFR Part 63, Subpart NNN OR-permittee must use a binder formulation that does not vary from the specification and operating range established and used during the performance test, 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 and the permittee must operate the incinerator such that any3-hour block average temperature in the firebox does not fall below the average established during the performance test. Appropriate monitoring, record keeping, and reporting requirements have been specified.
P029 P051	none	21-07(G)	n	n	y	y	n	n	y	n	y	n	n	n	OR-VOC content of each material employed shall consist of only water and liquid organic material; liquid organic material shall comprise no more than 20% of the volatile content, and volatile content of each material shall not be a PRM.

P029, P051, P093, P094, P095	none	18-06(E)	n	y	n	n	n	n	n	n	n	n	n	n	ND-The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). M,R,Rp,ET - no emission limitation established CAM is currently not applicable
P043 P044	none	18-06(E)	n	n	n	n	n	n	n	n	n	n	n	n	M,R,Rp,ET - no emission limitation established because process weight rate is less than 1,000 pounds/hour
P029 P051	employ BACT & LACT	21-08(B) and 23-06(B)	n	n	y	y	n	n	y	n	y	n	n	n	OR-monitoring of thermal incinerator temperature
P093, P094, P095	employ BACT & LACT	21-08(B) and 23-06(B)	n	n	n	n	n	n	n	n	n	n	n	n	M, R, Rp,- The BAT limits for NOx and CO are based on the EU's potential to emit, therefore no m, r, or rp is necessary.
P052	1.53 lbs PE/hr, 6.58 tpy 0.66 lbs Oc/hr, 2.84 tpy 0.35 lb formaldehyde, 1.51 tpy	n	y	n	y	y	n	n	y	n	y	n	y	n	Basis-OAC rule 3745-31-05(A)(3) All terms and conditions have been transferred from PTI 03-10931. OR- Hours of operation are restricted to 8600 hours. Appropriate monitoring, record keeping, and reporting requirements have been specified.

P029	8.32 tpy PE 0.43 lbs Nox/hr, 1.88 tpy 3.50 lbs OC/hr, 15.33 tpy 2.47 lbs CO/hr, 10.8 tpy 0.60 lb formaldehyde/hr, 2.63 tpy 1.3 lbs SO2/hr, 5.69 tpy 0.54 lb phenol/hr, 2.37 tpy	n	y	n	n	n	n	n	n	n	n	n	y	n	Basis-OAC rule 3745-31-05(A)(3) All terms and conditions have been transferred from PTI 03-06749. M,R,Rp - emission limitations represent the potential to emit, therefore ET is sufficient to show compliance.

P093	1.78 lbs PM_{10}/hr, 7.80 tpy PM_{10} 4.37 lbs CO/hr, 19.14 tpy CO 2.88 lbs OC/hr, 12.61 tpy OC 3.66 lbs NOx/hr, 16.03 tpy NOx 0.09 lb SO2/hr, 0.39 tpy SO2 0.82 lb formaldehyde/hr, 3.59 tpy formaldehyde	n	y	n	n	n	n	n	n	n	n	n	y	n	Basis-OAC rule 3745-31-05(A)(3) All terms and conditions have been transferred from PTI 03-17,015. M,R,Rp - emission limitations represent the potential to emit, therefore ET is sufficient to show compliance.

P094, P095	0.76 lbs PM_{10}/hr, 3.33 tpy PM_{10} 1.86 lbs CO/hr, 8.15 tpy CO 1.23 lbs OC/hr, 5.39 tpy OC 1.56 lbs NOx/hr, 6.83 tpy NOx 0.04 lb SO2/hr, 0.18 tpy SO2 0.35 lb formaldehyde/hr, 1.53 tpy formaldehyde	n	y	n	n	n	n	n	n	n	n	n	y	n	Basis-OAC rule 3745-31-05(A)(3) All terms and conditions have been transferred from PTI 03-17,015. M,R,Rp - emission limitations represent the potential to emit, therefore ET is sufficient to show compliance.
P093, P094, P095	1.2 lbs formaldehyde/ton of glass pulled	n	y	y	n	n	n	n	n	n	n	n	n	n	Basis - 40 CFR Part 63, Subpart NNN ND-Rule does not apply because the definition of reconstruction is not meet for the flame attenuation line.

EU = emissions unit ID
ND = negative declaration (i.e., term that indicates that a particular rule(s) is (are) not applicable to a specific emissions unit)
OR = operational restriction
M = monitoring requirements
St = streamlining term used to replace a PTI monitoring, record keeping, or reporting requirement with an equivalent or more stringent requirement
ENF = did noncompliance issues drive the monitoring requirements?
R = record keeping requirements
Rp = reporting requirements
ET = emission testing requirements (not including compliance method terms)
Misc = miscellaneous requirements

C **Instructions for Part III:**

C All non-insignificant EUs must be included in this table. For each EU, or group of similar EUs, each emission limitation and control requirement specified in section A.I.1 and A.I.2 of the permit must be identified and the remainder of the table completed.

C If the SIP (not including OAC rule 3745-31-05) is the basis for the term and condition, identify the specific rule. If the SIP is not the basis for the term and condition, place an "N" in the column under "SIP." If the basis for the term and condition is something other than the SIP, including OAC rule 3745-31-05, NSPS or MACT, a "Y" should be noted in the "Other" column, and if not, an "N" should be noted. If the basis for the term and condition is "Other," an explanation of the basis must be provided in the "Comments" section. If OAC rule 3745-31-05 is cited in the "Other" column, please indicate in the "Comments" section whether or not all of the requirements have been transferred from the permit to install.

- To complete the remainder of the table after "Basis," except for the "Comments" section, simply specify a "Y" for yes or an "N" for no. For the "M," "R," "Rp," and "ET" columns, if "N" is specified, there should be a brief explanation in the "Comments" section as to why there are no requirements. If a brief explanation is provided in the "Comments" section, please do not simply indicate that monitoring or testing requirements are not necessary. An explanation of why a requirement is not necessary should be specified.

  When periodic monitoring requirements are established to satisfy the provisions of OAC rule 3745-77-07(A)(3)(a)(ii), the basis for the requirements must be explained. Whenever Engineering Guides have been used to establish the periodic monitoring requirements, the applicable Engineering Guide may be referenced in the "Comments" section. An example that should be clarified would be the situation where it has been determined that control equipment parametric monitoring will be used to evaluate ongoing compliance in lieu of performing frequent emission tests. In this situation, Engineering Guide #65 would be referenced along with the fact that the parametric monitoring range (or minimum value) corresponded to the range (or minimum value) documented during the most recent emission tests that demonstrated that the emissions unit was in compliance. If streamlining language is included in the "Monitoring," "Record Keeping," or "Reporting" requirements sections of the permit, explain which requirements are being streamlined (mark appropriate column above) and provide a brief explanation of why the streamlined term is equal to or more stringent than the "Monitoring," "Record Keeping," or "Reporting" requirements specified in the permit to install. If Engineering Guide #16 was used as the basis for establishing an emission test frequency, a simple note referencing the Engineering Guide in the "Comments" section would be sufficient.

  Also, if a "Y" is noted under "OR," "Misc," "St," "ND," or "ENF" an explanation of the requirements must be provided in the "Comments" section. In addition to a general explanation of the "OR," "Misc," "St," "ND," and/or "ENF" the following must be provided:

  1. For an operational restriction, clarify if appropriate monitoring, record keeping, and reporting requirements have been specified for the operational restriction and indicate whether or not CAM is currently applicable.
  2. If a control plan and schedule is included in the "Miscellaneous Requirements" section of the permit, provide an explanation in the "Comments" section of the violation, basis for the violation, and the company's proposed control plan and schedule.
  3. If the "ND" column above is marked, please identify the particular rule(s) that is (are) not applicable to the specified emissions unit.
  2. If the "ENF" column above is marked, please provide a brief explanation of the noncompliance issue(s) which prompted the use of the specified monitoring requirement.

  An explanation is not required if an "N" is noted in the "OR," "Misc," "St," "ND," or "ENF" columns.

- **Additional information for modifications** - Several types of modifications, as defined by rule, may be processed concurrently. Please provide enough of a description for someone wishing to review the changes to the permit language to be able to identify where the change is made in the permit document. This brief description should be identified in the appropriate row in the first table of this form by replacing the "N/A" in the applicable row(s). Please also indicate if the modification is being initiated by an appeal by including the ERAC case number in the "Comments" area. Please update the term-specific text in the SOB as warranted (full insertion or replacement is acceptable; bold italic and strike out is not needed). Note all modification/reopening rows should remain "N/A" when developing the SOB during the initial permit development. Note: APA's and Off-permit changes do not need to be noted in the SOB.