



State of Ohio Environmental Protection Agency

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

08/27/99

**CERTIFIED MAIL**

**RE: Draft Title V Chapter 3745-77 permit**

03-20-01-0005  
Johns Manville International, Inc.  
George Richard Bonin  
P.O. Box 7218  
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,

Thomas G. Rigo, Manager  
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





## Ohio EPA

State of Ohio Environmental Protection Agency

### TITLE V PERMIT

Issue Date: 08/27/99

### DRAFT

Effective Date:

Expiration Date:

This document constitutes issuance to:

Johns Manville International, Inc.  
P.O. Box 7218  
925 Carpenter Road  
Defiance, OH 43512

of a Title V permit for Facility ID: 03-20-01-0005

Emissions Unit ID (Company ID)/

Emissions Unit Activity Description:

P001 (Unit 81 - Forming and Collection)

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

P005 (Blowing Wool Manufacturing)

Fiber glass shredder and hammermill.

P008 (Unit 88 - Forming and Collection)

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

P012 (Unit 82 - Forming and Collection)

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

P013 (Unit 84 - Forming and Collection)

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

P015 (Unit 86 - Forming and Collection)

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

P029 (Unit 86 - NG Curing Oven)

Fiber glass curing oven.

P043 (Unit 81 - NG Curing Oven)

Fiber glass curing oven.

P044 (Unit 82 - NG Curing Oven)

Fiber glass curing oven.

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

Z009 (Unit 88 - NG Searing Rolls)

Searing rolls.

Z010 (Unit 88 - Electric Curing Platen Press)

Electric platten press.

Z011 (Unit 88 - Spray Coater & Drying Oven)

Fiber glass spray coater.

Z028 (Process Water Treatment : all)

Process Water Treatment

Z904 (Air Make - Up Unit)

Air make up unit.

Z908 (Air Make - Up Unit)

Air make up unit.

Z911 (Air Make - Up Unit)

Air make up unit.

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 3745-77-04(A) 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

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Christopher Jones  
Director

# **PART I - GENERAL TERMS AND CONDITIONS**

## **A. State and Federally Enforceable Section**

### **1. Monitoring and Related Recordkeeping and Reporting Requirements**

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- 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.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. These quarterly written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.) See B.8 below if no deviations occurred during the quarter.
  - iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, recordkeeping, and reporting

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

- 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 are true, accurate, and complete.

## **2. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, 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. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports submitted pursuant to OAC rule 3745-15-06 shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of deviations caused by malfunctions or upsets.

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 emission unit(s) that is (are) served by such control system(s).

## **3. Risk Management Plans**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

## **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.

## **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.

## **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. 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.

**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.

**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.

**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.

**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 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.

## **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.

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

Compliance certifications concerning the terms and conditions contained in this permit that are enforceable emission limitations, standards, or work practices, shall be submitted to the following content:

- i. certifications shall be submitted annually on a calendar year basis. The annual permit term.
  - ii.
    - (a) An certification.
    - (b)
    - (c) Whether compliance was continuous or intermittent. The method(s) used for determining the compliance status of the source currently
    - (e) Such determine the compliance status of the source.
  - iii. certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

**Permit Shield**

- a. e with the terms and conditions of this permit (including terms and conditions e excluding terms and conditions for which the permit shield is expressly prohibited under OAC 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC more emissions units within the source.

**14.**

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of and does not result in an exceedance of the emissions allowed under this permit (whether expressed 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 written notification within a minimum of seven days in advance of the proposed changes, unless the is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond 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).

## **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.

## **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, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change;
- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F);
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes; and
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

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

(For further clarification, the permittee can refer to Engineering Guide #63 that is available in their STARSHIP software package.)

## **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.

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

### **1. 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.

### **2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping 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 (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) 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. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

### **3. 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.

### **4. 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.

**5. 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).

**6. 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.

**7. 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.

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

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

## Part II - Specific Facility Terms and Conditions

### A. State and Federally Enforcable Section

None

### B. State Only Enforceable Section

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

B003 - Boiler, fire protection  
B004 - Boiler, west binder room  
B005 - Boiler, east binder room  
P003 - Off line water based spray coater & oven  
P033 - QC test press  
P034 - QC test press  
P035 - East binder room, 8 mixing tanks  
P036 - East binder room, 2 pre-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 treatment 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  
Z035 - Propane vaporizer system VAP-1  
Z036 - Propane vaporizer system VAP-2  
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  
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:** 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming line	OAC rule 3745-17-11 (B)(1)	See A.I.2.b.
	OAC rule 3745-17-07 (A)	20% opacity, as a 6-minute average, except as provided by rule

#### 2. Additional Terms and Conditions

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

\*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 I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 lbs PE/hr. However, to ensure that Figure II will not be applicable, the permittee has agreed to accept the PE limitation stated above (less than 10 lbs/hr).

### II. Operational Restrictions

None

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

#### IV. Reporting Requirements

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

#### 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 emission limitation above shall be based on the results of the stack testing required in section V.2 of this permit.

- 1.b Emission Limitation:  
20% opacity, as a 6-minute average, except as provided by rule

Applicable Compliance Method:

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 renewal.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5 of 40 CFR Part 60, Appendix A.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

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

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

#### 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.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass shredder and hammermill w/ cyclone and baghouse	OAC rule 3745-17-11 (B)(1)  OAC rule 3745-17-07 (A)	5.85 lbs particulate emissions (PE)/hr  20% opacity, as a 6-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 2 to 5 inches of water while the emissions unit is in operation

**III. Monitoring and/or Record Keeping Requirements**

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

**IV. Reporting Requirements**

1. The permittee shall submit 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.

**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 emission limitation above shall be based on the results of the stack testing required in section V.2 of this permit.

## V. Testing Requirements (continued)

- 1.b** Emission Limitation:  
20% opacity, as a 6-minute average, except as provided by rule
- Applicable Compliance Method:  
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:
- The emission testing shall be conducted within 6 months prior to permit renewal.
  - The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.
  - The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5 of 40 CFR Part 60, Appendix A.
  - The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- 3.** Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

## 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.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping 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:** 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming line	OAC rule 3745-17-11 (B)(1)	See A.I.2.a.
	OAC rule 3745-17-07 (A)	20% opacity, as a 6-minute average, except as provided by rule
	OAC rule 3745-21-07 (G)	See A.II.1.

#### 2. Additional Terms and Conditions

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

\*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 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 permittee shall not employ any liquid organic material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

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

2. 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.

### IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit deviation (excursion) reports which identify each month during which a photochemically reactive material was employed in this emissions unit. The report shall be submitted within 45 days after the deviation occurs.

### 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 emission limitation above shall be based on the results of the stack testing required in section V.2 of this permit.
  - 1.b Emission Limitation:  
20% opacity, as a 6-minute average, except as provided by rule  
  
Applicable Compliance Method:  
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 renewal.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5 of 40 CFR Part 60, Appendix A.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

## **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 appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

## **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 Chapter 3745-31. Therefore, the permittee shall perform the following in order to bring this emissions unit into compliance:
  - a. submit a complete PTI application within 2 months following the issuance of this permit; and
  - b. obtain a PTI within 8 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.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping 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:** 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming line; unit 82	OAC rule 3745-31-05 (D) (PTI #03-8472)	8.1 lbs particulate emissions (PE)/hr  See A.I.2.a.
	OAC rule 3745-17-07 (A)	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.

##### 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 emissions resulting from the installation of a new fiberglass forming line at the facility.
- 2.b This emissions unit was installed prior to February 15, 1972; therefore, there are no applicable regulations/emission limitations for organic compounds for this emissions unit.

#### II. Operational Restrictions

None

#### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

#### IV. Reporting Requirements

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

#### 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 emission limitation above shall be based on the results of the stack testing required in section V.2 of this permit.

- 1.b Emission Limitation:  
20% opacity, as a 6-minute average, except as provided by rule

Applicable Compliance Method:

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 renewal.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5 of 40 CFR Part 60, Appendix A.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

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

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

#### 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.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping 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:** 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming line	OAC rule 3745-17-11 (B)(1)	See A.I.2.b.
	OAC rule 3745-17-07 (A)	20% opacity, as a 6-minute average, except as provided by rule

##### 2. Additional Terms and Conditions

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

\*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 I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 lbs PE/hr. However, to ensure that Figure II will not be applicable, the permittee has agreed to accept the PE limitation stated above (less than 10 lbs/hr).

##### II. Operational Restrictions

None

##### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

#### IV. Reporting Requirements

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

#### 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 emission limitation above shall be based on the results of the stack testing required in section V.2 of this permit.

- 1.b Emission Limitation:  
20% opacity, as a 6-minute average, except as provided by rule

Applicable Compliance Method:

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 renewal.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5 of 40 CFR Part 60, Appendix A.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

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

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

#### 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.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping 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:** 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming line	OAC rule 3745-17-11 (B)(1)	9.1 lbs particulate emissions (PE)/hr
	OAC rule 3745-17-07 (A)	20% opacity, as a 6-minute average, except as provided by rule

##### 2. Additional Terms and Conditions

- 2.a This emissions unit was installed prior to February 15, 1972; therefore, there are no applicable regulations/emission limitations for organic compounds for this emissions unit.

##### II. Operational Restrictions

None

##### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

##### IV. Reporting Requirements

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

## 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:  
9.1 lbs PE/hr  
  
Applicable Compliance Method:  
Compliance with the emission limitation above shall be based on the results of the stack testing required in section V.2 of this permit.
  - 1.b Emission Limitation:  
20% opacity, as a 6-minute average, except as provided by rule  
  
Applicable Compliance Method:  
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 renewal.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5 of 40 CFR Part 60, Appendix A.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

## 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.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping 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 - NG 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass curing oven w/ high energy air filtration (HEAF) unit; unit #86	OAC rule 3745-17-11 (B)(1)	1.9 lbs particulate emissions (PE)/hr
	OAC rule 3745-17-07 (A)	20% opacity, as a 6-minute average, except as provided by rule
	OAC rule 3745-21-07(G)	exempt, pursuant to OAC rule 3745-21-07 (G)(9)(c)

##### 2. Additional Terms and Conditions

None

##### 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.
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.
3. The filter media used in the HEAF unit to control PE and OC emissions 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.
4. 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.

### 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).
2. 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 its associated duct work.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify each month during which a noncomplying material (see section A.II.1) was employed in this emissions unit. The report shall be submitted within 45 days after the deviation occurs.
2. The permittee shall notify the Director (the appropriate District Office or local air agency) 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 appropriate District Office or local air agency) within 30 days after the event occurs.
3. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

### 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:  
1.9 lbs PE/hr  
  
Applicable Compliance Method:  
Compliance with the emission limit of 1.9 lbs PE/hr shall be based upon the results of the stack testing required in section A.V.2 of this permit.

## V. Testing Requirements (continued)

- 1.b** Emission Limitation:  
20% opacity as a 6 minute average, except as provided by rule.

Applicable Compliance Method:  
OAC rule 3745-17-03 (B)(1)

### 2. Emission testing requirements

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 renewal.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5 of 40 CFR Part 60, Appendix A.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- 3.** Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

## 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass curing oven w/ HEAF unit; unit #86	OAC rule 3745-31-05 (PTI 03-6749)	1.9 lbs PE/hr  3 lbs OC/hr and 15 lbs OC/day; 2.74 TPY OC  0.10 lb formaldehyde/hr;  0.10 lb phenol/hr

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall collect and record the following information each day for this emissions unit.
  - a. the total number of hours of operation; and
  - b. the total OC emissions, in pounds, calculated by multiplying the number of hours of operation (hours/day) from section 1.a by the hourly OC emissions rate (based on the results of the most recent stack testing).

**IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the daily OC emission limitation of 15 pounds.

**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:  
1.9 lbs PE/hr

Applicable Compliance Method:  
 Compliance with the emission limit of 1.9 lbs PE/hr shall be based upon the results of the stack testing required in section A.V.2 of this permit.

**V. Testing Requirements (continued)**

- 1.b** Emission Limitations:  
3.0 lbs OC/hr and 15 lbs OC/day

Applicable Compliance Method:

Compliance with the emission limit of 3.0 lbs OC/hr shall be based upon the results of the stack testing required in Section B.V.2 of this permit.

Compliance with the 15 lbs OC/day emission limit shall be based upon the record keeping requirements in section B.III.1 of this permit.

Compliance with the annual limit of 2.74TPY will be assumed as long as compliance with the daily limit is maintained [the annual limit is based upon multiplying the daily emissions by 365 and dividing by 2000].

- 1.c** Emission Limitation:  
0.10 lb formaldehyde/hr

Applicable Compliance Method:

Compliance with the emission limit of 0.10 lb formaldehyde/hr shall be based upon the results of the stack testing required in section B.V.2 of this permit.

- 1.d** Emission Limitation:  
0.10 lb phenol/hr

Applicable Compliance Method:

Compliance with the emission limit of 0.10 lb phenol/hr shall be based upon the results of the stack testing required in section B.V.2 of this permit.

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

a. The emission testing shall be conducted within 3 months after issuance of this permit and within 6 months prior to permit renewal.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for OC, formaldehyde, and phenol.

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

OC

Method 18, Method 25, or Method 25A of 40 CFR Part 60, Appendix A.

formaldehyde

Method 316 of 40 CFR Part 60, Appendix A.

phenol

Use of an appropriate test method approved by the Ohio EPA.

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

**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 appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

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

**VI. Miscellaneous Requirements**

**None**

## Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Unit 81 - NG Curing Oven (P043)  
**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass curing operation w/ high energy air filtration (HEAF) unit	OAC rule 3745-17-11 (B)(1)	2.8 lbs particulate emissions (PE)/hr
	OAC rule 3745-17-07 (A)	20% opacity, as a 6-minute average, except as provided by rule

#### 2. Additional Terms and Conditions

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

### II. Operational Restrictions

1. The filter media used in the HEAF units to control PE and OC emissions shall be metered into the unit on a timed basis. New filter media shall be indexed into the HEAF units on a minimum basis of every 15 minutes.
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.
3. The permittee shall operate sensors in the HEAF units and their duct work to indicate the presence of a fire. These sensors shall also activate the fire sprinklers.

### 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 that either of the HEAF units were shut down and a description of any repairs made.
  - c. The date and time of any fires in the HEAF units or their associated duct work.

### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate District Office or local air agency) 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 appropriate District Office or local air agency) within 30 days after the event occurs.

## 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:  
2.8 lbs PE/hr

Applicable Compliance Method:

Compliance with the hourly limitation above shall be determined by multiplying the AP-42, 5th edition, Table 11.13-2 emission factor of 6.0 pounds of particulate emissions per ton of material processed by the maximum hourly production rate (tons/hr).

If required, the permittee shall demonstrate compliance with the above emissions limit pursuant to OAC rule 3745-17-03 (B)(10).

1.b Emission Limitation:  
20% opacity, as a 6-minute average, except as provided by rule

Applicable Compliance Method:  
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.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping 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 - NG Curing Oven (P044)  
**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass curing operation w/ high energy air filtration (HEAF) unit	OAC rule 3745-17-11 (B)(1)	2.8 lbs particulate emissions (PE)/hr
	OAC rule 3745-17-07 (A)	20% opacity, as a 6-minute average, except as provided by rule

**2. Additional Terms and Conditions**

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

**II. Operational Restrictions**

1. The filter media used in the HEAF units to control PE and OC emissions shall be metered into the unit on a timed basis. New filter media shall be indexed into the HEAF units on a minimum basis of every 15 minutes.
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.
3. The permittee shall operate sensors in the HEAF units and their duct work to indicate the presence of a fire. These sensors shall also activate the fire sprinklers.

**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 that either of the HEAF units were shut down and a description of any repairs made.
  - c. The date and time of any fires in the HEAF units or their associated duct work.

**IV. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate District Office or local air agency) 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 appropriate District Office or local air agency) within 30 days after the event occurs.

## 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:  
2.8 lbs PE/hr

Applicable Compliance Method:

Compliance with the hourly limitation above shall be determined by multiplying the AP-42, 5th edition, Table 11.13-2 emission factor of 6.0 pounds of particulate emissions per ton of material processed by the maximum hourly production rate (tons/hr).

If required, the permittee shall demonstrate compliance with the above emissions limit pursuant to OAC rule 3745-17-03 (B)(10).

1.b Emission Limitation:  
20% opacity, as a 6-minute average, except as provided by rule

Applicable Compliance Method:

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.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping 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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
hot end batch melter w/ dual baghouses; line 89	OAC rule 3745-17-11(B)(1)	See section A.I.2.a.
	OAC rule 3745-17-07(A)	20% opacity, as a 6-minute average, except as provided by rule
	OAC rule 3745-31-05(D) (PTI # 03-0931)	0.46 lb particulate emissions (PE)/hr  See A.II.2.

##### 2. Additional Terms and Conditions

- The PE limitation established based on this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(D) .
- The PE limits were established to avoid PSD review in PTI #03-0931 as a result of the installation of a new fiberglass forming line.
- The maximum PE from this emissions unit shall not exceed 1.98 tons/rolling, 12-month period.

##### II. Operational Restrictions

- The pressure drop across each baghouse shall be maintained within the range of 2-5 inches of water while the emissions unit is in operation.
- The maximum annual number of hours of operation for this emissions unit shall not exceed 8600, based upon a rolling, 12-month summation of the monthly number of hours of operation for this emissions unit.

##### III. Monitoring and/or Record Keeping Requirements

- The permittee shall properly install, 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.

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

2. The permittee shall maintain and record each month the following information for this emissions unit:
  - a. The number of hours of operation.
  - b. The rolling, 12-month summation of the number of hours this emissions unit was in operation.
  - c. The total particulate emissions, in pounds, calculated by multiplying the number of hours of operation (hours/day) from section 1.a by the hourly PE emissions rate (based on the results of the most recent stack testing).
  - d. The rolling, 12-month summation of the monthly particulate emissions, in tons.

### IV. Reporting Requirements

1. The permittee shall submit 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.
2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the following:
  - a. the rolling, 12-month limitation on the number of hours of operation; and
  - b. the rolling, 12-month limitation on the PE.
3. The permittee shall submit annual reports which summarize the actual annual emissions of particulates and the actual annual number of hours the emissions unit was in operation. The reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

### 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:  
0.46 lb PE/hr and 1.98 tons PE/rolling, 12-month period  
  
Applicable Compliance Method  
Compliance with the hourly emission limitation shall be based upon the results of the stack testing required in section V.2 of this permit.  
  
Compliance with the annual emission limitation shall be demonstrated based upon the record keeping in section A.III of this permit.
  - 1.b Emission Limitation:  
20% opacity, as a 6-minute average, except as provided by rule  
  
Applicable Compliance Method:  
OAC rule 3745-17-03(B)(1)
  - 1.c Emission Limitation:  
8600 hours/rolling, 12-month period  
  
Applicable Compliance Method:  
The permittee shall demonstrate compliance with the hours restriction based upon the record keeping in section A.III of this permit.

## V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 6 months prior to expiration of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

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

## 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
hot end batch melter w/ dual baghouses; line 89	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 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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming and collection zone w/ venturi wet scrubber; module A, line 89	OAC rule 3745-31-05(D) (PTI #03-0931)	2.85 lbs particulate emissions (PE)/hr  12.26 tons PE/rolling, 12-month period  1.93 lbs NOx/hr  8.30 tons NOx/rolling, 12-month period
	OAC rule 3745-17-07(A)	See section A.I.2.b. 20% opacity, as a 6-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(1)	See section A.I.2.a.
	40 CFR Subpart PPP	11.0 lbs PE/ton of glass pulled (for emissions units P048-P052 combined)
	OAC rule 3745-18-06	90 lbs sulfur dioxide (SO2)/hr
	OAC rule 3745-21-07(G)	none (see A.II.2)

##### 2. Additional Terms and Conditions

- The PE limitation established based on this rule is less stringent than the limitation established pursuant to OAC rule 3725-31-05 (D).
- The NOx and PE limits were established to avoid PSD review in PTI #03-0931 as a result of the installation of a new fiberglass forming line.

##### II. Operational Restrictions

- The maximum annual operating hours for this emissions unit shall not exceed 8600, based upon a rolling, 12-month summation of the monthly number of hours of operation for this emissions unit.
- The permittee shall not employ any liquid organic material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01 (C)(5).

## II. Operational Restrictions (continued)

3. The venturi 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.
4. The pressure drop across the venturi 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.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain and record each month the following information for this emissions unit:
  - a. The number of hours of operation.
  - b. The rolling, 12-month summation of the number of hours this emissions unit was in operation.
  - c. The total particulate emissions, in pounds, calculated by multiplying the number of hours of operation (hours/day) from section 1.a by the hourly PE emissions rate (based on the results of the most recent stack testing).
  - d. The total NO<sub>x</sub> emissions, in pounds, calculated by multiplying the number of hours of operation (hours/day) from section 1.a by the hourly NO<sub>x</sub> emissions rate (based on the results of the most recent stack testing).
  - e. The rolling, 12-month summation of the monthly particulate emissions, in tons.
  - f. The rolling, 12-month summation of the monthly NO<sub>x</sub> emissions, in tons.
2. The permittee shall properly install, operate and maintain equipment to continuously monitor the static pressure drop across the venturi scrubber and the venturi scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

- a. The pressure drop across the venturi scrubber, in inches of water, every 4 hours.
  - b. The venturi scrubber water flow rate, in gallons per minute, every 4 hours.
  - c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
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.
    - b. Documentation on whether or not each liquid organic material employed is a photochemically reactive material.

## IV. Reporting Requirements

1. The permittee shall submit 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 venturi scrubber.
  - b. The venturi scrubber water flow rate.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the following:
  - a. the rolling, 12-month limitation on the number of hours of operation;
  - b. the rolling, 12-month limitation on the PE; and
  - c. the rolling, 12-month limitation on the NOx emissions.
3. The permittee shall submit deviation (excursion) reports which identify each month during which a photochemically reactive material was employed in this emissions unit. The report shall be submitted within 45 days after the deviation occurs.
4. The permittee shall submit annual reports which summarize the actual annual emissions of particulates and NOx and the actual annual number of hours the emissions unit was in operation. The reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

#### **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:

2.85 lbs PE/hr, 11 lbs PE/tons of glass pulled, and 12.26 tons PE/rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section A.V.2 of the terms and conditions of this permit.

Compliance with the lbs PE/ton of glass limitation shall be demonstrated based upon the results of the stack testing required in section A.V.2 of each permit for emissions units P048-P052.

Compliance with the annual (tons PE/rolling, 12-month period) emission limitation shall be demonstrated based upon the record keeping requirements in section A.III of this permit.

**1.b** Emission Limitation:

20% opacity, as a 6-minute average, except as provided by rule

Applicable Compliance Method:

OAC rule 3745-17-03(B)(1)

**1.c** Emission Limitations:

1.93 lbs NOx/hr, 8.3 tons NOx/rolling, 12-month period

Applicable Compliance Method

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section A.V.2 of the terms and conditions of this permit.

Compliance with the annual (tons NOx/rolling, 12-month period) emission limitation shall be demonstrated based upon the record keeping requirements in section A.III of this permit.

## V. Testing Requirements (continued)

**1.d** Emission Limitation:

90 lbs SO<sub>2</sub>/hr

Applicable Compliance Method

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section A.V.2 of the terms and conditions of this permit.

**1.e** Emission Limitation:

8600 hours/rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hours restriction based upon the record keeping in section A.III of this permit.

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

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

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for: particulates, SO<sub>2</sub> and NO<sub>x</sub>.

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

PE

Method 5 & 5E of 40 CFR Part 60, Appendix A

NO<sub>x</sub>

Method 7 of 40 CFR Part 60, Appendix A

SO<sub>2</sub>

Method 6 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 appropriate Ohio EPA District Office or local air agency.

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

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

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

Facility Name: **Johns Manville: PLANT #8**  
Facility ID: **03-20-01-0005**  
Emissions Unit: **Unit 89 Collection Module A (P048)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming and collection zone w/ venturi wet scrubber; module A, line 89	OAC rule 3745-31-05 (PTI #03-0931)	6.89 lbs organic compounds (OC)/hr, 29.63 TPY OC  0.80 lb formaldehyde/hr, 3.44 TPY formaldehyde  1.2 lbs formaldehyde/ton glass pulled (for emissions units P048-P052 combined)  4.0 lbs sulfur dioxide (SO2)/hr, 17.2 TPY SO2  9.10 lbs carbon monoxide (CO)/hr, 39.13 TPY CO  1.66 lbs volatile organic compounds (VOC)/hr, 7.14 TPY VOC

**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**

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

**V. Testing Requirements (continued)**

**1.a** Emission Limitations:

6.89 lbs OC/hr, 29.63 TPY OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

**1.b** Emission Limitations:

0.80 lb formaldehyde/hr, 3.44 TPY formaldehyde

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

**1.c** Emission Limitations:

4.0 lbs SO<sub>2</sub>/hr, 17.2 TPY SO<sub>2</sub>

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section A.V.2 of the terms and conditions of this permit.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

**1.d** Emission Limitation:

1.2 lbs formaldehyde/ton glass pulled

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emission limitation based upon the results of the stack testing specified in the terms and conditions of section B.V.2 of each permit for emissions units P048-P052.

## V. Testing Requirements (continued)

### 1.e Emission Limitations:

9.10 lbs CO lbs/hr, 39.13 TPY CO

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

### 1.f Emission Limitations:

1.66 lbs VOC/hr, 7.14 TPY VOC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit. .

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

## 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 expiration of this permit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for formaldehyde, VOC, OC, and CO.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

formaldehyde  
Method 316 of 40 CFR Part 60, Appendix A

VOC/OC  
Method 18, Method 25, or Method 25A of 40 CFR Part 60, Appendix A

CO  
Method 10 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 appropriate Ohio EPA District Office or local air agency.

## **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 appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

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

## **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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming and collection zone w/ venturi wet scrubber; module B, line 89	OAC rule 3745-31-05(D) (PTI #03-0931)	2.65 lbs particulate emissions (PE)/hr  11.4 tons PE/rolling, 12-month period  1.93 lbs NOx/hr  8.30 tons NOx/rolling, 12-month period
	OAC rule 3745-17-07(A)	See section A.I.2.b. 20% opacity, as a 6-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(1) 40 CFR Subpart PPP	See section A.I.2.a. 11.0 lbs PE/ton of glass pulled (for emissions units P048-P052 combined)
	OAC rule 3745-18-06	90 lbs sulfur dioxide (SO <sub>2</sub> )/hr
	OAC rule 3745-21-07(G)	none (see A.II.2)

##### 2. Additional Terms and Conditions

- 2.a The PE limitation established based on this rule is less stringent than the limitation established pursuant to OAC rule 3725-31-05 (D).
- 2.b The NOx and PE limits were established to avoid PSD review in PTI #03-0931 as a result of the installation of a new fiberglass forming line.

##### II. Operational Restrictions

1. The maximum annual operating hours for this emissions unit shall not exceed 8600, based upon a rolling, 12-month summation of the monthly number of hours of operation for this emissions unit.
2. The permittee shall not employ any liquid organic material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01 (C)(5).

## II. Operational Restrictions (continued)

3. The venturi 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.
4. The pressure drop across the venturi 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.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain and record each month the following information for this emissions unit:
  - a. The number of hours of operation.
  - b. The rolling, 12-month summation of the number of hours this emissions unit was in operation.
  - c. The total particulate emissions, in pounds, calculated by multiplying the number of hours of operation (hours/day) from section 1.a by the hourly PE emissions rate (based on the results of the most recent stack testing).
  - d. The total NO<sub>x</sub> emissions, in pounds, calculated by multiplying the number of hours of operation (hours/day) from section 1.a by the hourly NO<sub>x</sub> emissions rate (based on the results of the most recent stack testing).
  - e. The rolling, 12-month summation of the monthly particulate emissions, in tons.
  - f. The rolling, 12-month summation of the monthly NO<sub>x</sub> emissions, in tons.
2. The permittee shall properly install, operate and maintain equipment to continuously monitor the static pressure drop across the venturi scrubber and the venturi scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

- a. The pressure drop across the venturi scrubber, in inches of water, every 4 hours.
  - b. The venturi scrubber water flow rate, in gallons per minute, every 4 hours.
  - c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
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.
    - b. Documentation on whether or not each liquid organic material employed is a photochemically reactive material.

## IV. Reporting Requirements

1. The permittee shall submit 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 venturi scrubber.
  - b. The venturi scrubber water flow rate.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the following:
  - a. the rolling, 12-month limitation on the number of hours of operation;
  - b. the rolling, 12-month limitation on the PE; and
  - c. the rolling, 12-month limitation on the NOx emissions.
3. The permittee shall submit deviation (excursion) reports which identify each month during which a photochemically reactive material was employed in this emissions unit. The report shall be submitted within 45 days after the deviation occurs.
4. The permittee shall submit annual reports which summarize the actual annual emissions of particulates and NOx and the actual annual number of hours the emissions unit was in operation. The reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

#### **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:

2.65 lbs PE/hr, 11 lbs PE/tons of glass pulled, and 11.4 tons PE/rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section A.V.2 of the terms and conditions of this permit.

Compliance with the lbs PE/ton of glass limitation shall be demonstrated based upon the results of the stack testing required in section A.V.2 of each permit for emissions units P048-P052.

Compliance with the annual (tons PE/rolling, 12-month period) emission limitation shall be demonstrated based upon the record keeping requirements in section A.III of this permit.

**1.b** Emission Limitation:

20% opacity, as a 6-minute average, except as provided by rule

Applicable Compliance Method:

OAC rule 3745-17-03(B)(1)

**1.c** Emission Limitations:

1.93 lbs NOx/hr, 8.3 tons NOx/rolling, 12-month period

Applicable Compliance Method

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section A.V.2 of the terms and conditions of this permit.

Compliance with the annual (tons NOx/rolling, 12-month period) emission limitation shall be demonstrated based upon the record keeping requirements in section A.III of this permit.

## V. Testing Requirements (continued)

**1.d** Emission Limitation:

90 lbs SO<sub>2</sub>/hr

Applicable Compliance Method

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section A.V.2 of the terms and conditions of this permit.

**1.e** Emission Limitation:

8600 hours/rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hours restriction based upon the record keeping in section A.III of this permit.

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

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

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for: particulates, SO<sub>2</sub> and NO<sub>x</sub>.

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

PE

Method 5 & 5E of 40 CFR Part 60, Appendix A

NO<sub>x</sub>

Method 7 of 40 CFR Part 60, Appendix A

SO<sub>2</sub>

Method 6 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 appropriate Ohio EPA District Office or local air agency.

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

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

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

Facility Name: **Johns Manville: PLANT #8**  
Facility ID: **03-20-01-0005**  
Emissions Unit: **Unit 89 Collection Module B (P049)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming and collection zone w/ venturi wet scrubber; module A, line 89	OAC rule 3745-31-05 (PTI #03-0931)	4.47 lbs organic compounds (OC)/hr, 19.22 TPY OC  0.80 lb formaldehyde/hr, 3.44 TPY formaldehyde  1.2 lbs formaldehyde/ton glass pulled (for emissions units P048-P052 combined)  2.0 lbs sulfur dioxide (SO <sub>2</sub> )/hr, 8.6 TPY SO <sub>2</sub>  9.10 lbs carbon monoxide (CO)/hr, 39.13 TPY CO  1.66 lbs volatile organic compounds (VOC)/hr, 7.14 TPY VOC

**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**

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

## **V. Testing Requirements (continued)**

### **1.a Emission Limitations:**

4.47 lbs OC/hr, 19.22 TPY OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

### **1.b Emission Limitations:**

0.80 lb formaldehyde/hr, 3.44 TPY formaldehyde

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

### **1.c Emission Limitations:**

2.0 lbs SO<sub>2</sub>/hr, 8.6 TPY SO<sub>2</sub>

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section A.V.2 of the terms and conditions of this permit.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

### **1.d Emission Limitation:**

1.2 lbs formaldehyde/ton glass pulled

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emission limitation based upon the results of the stack testing specified in the terms and conditions of section B.V.2 of each permit for emissions units P048-P052.

## V. Testing Requirements (continued)

### 1.e Emission Limitations:

9.10 lbs CO lbs/hr, 39.13 TPY CO

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

### 1.f Emission Limitations:

1.66 lbs VOC/hr, 7.14 TPY VOC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit. .

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

## 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 expiration of this permit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for formaldehyde, VOC, OC, and CO.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

formaldehyde  
Method 316 of 40 CFR Part 60, Appendix A

VOC/OC  
Method 18, Method 25, or Method 25A of 40 CFR Part 60, Appendix A

CO  
Method 10 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 appropriate Ohio EPA District Office or local air agency.

## **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 appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

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

## **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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming and collection zone w/ venturi wet scrubber; module B, line 89	OAC rule 3745-31-05(D) (PTI #03-0931)	2.65 lbs particulate emissions (PE)/hr  11.4 tons PE/rolling, 12-month period  1.93 lbs NOx/hr  8.30 tons NOx/rolling, 12-month period
	OAC rule 3745-17-07(A)	See section A.I.2.b. 20% opacity, as a 6-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(1)	See section A.I.2.a.
	40 CFR Subpart PPP	11.0 lbs PE/ton of glass pulled (for emissions units P048-P052 combined)
	OAC rule 3745-18-06	68.6 lbs sulfur dioxide (SO <sub>2</sub> )/hr
	OAC rule 3745-21-07(G)	none (see A.II.2)

##### 2. Additional Terms and Conditions

- The PE limitation established based on this rule is less stringent than the limitation established pursuant to OAC rule 3725-31-05 (D).
- The NOx and PE limits were established to avoid PSD review in PTI #03-0931 as a result of the installation of a new fiberglass forming line.

##### II. Operational Restrictions

- The maximum annual operating hours for this emissions unit shall not exceed 8600, based upon a rolling, 12-month summation of the monthly number of hours of operation for this emissions unit.
- The permittee shall not employ any liquid organic material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01 (C)(5).

## II. Operational Restrictions (continued)

3. The venturi 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.
4. The pressure drop across the venturi 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.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain and record each month the following information for this emissions unit:
  - a. The number of hours of operation.
  - b. The rolling, 12-month summation of the number of hours this emissions unit was in operation.
  - c. The total particulate emissions, in pounds, calculated by multiplying the number of hours of operation (hours/day) from section 1.a by the hourly PE emissions rate (based on the results of the most recent stack testing).
  - d. The total NOx emissions, in pounds, calculated by multiplying the number of hours of operation (hours/day) from section 1.a by the hourly NOx emissions rate (based on the results of the most recent stack testing).
  - e. The rolling, 12-month summation of the monthly particulate emissions, in tons.
  - f. The rolling, 12-month summation of the monthly NOx emissions, in tons.
2. The permittee shall properly install, operate and maintain equipment to continuously monitor the static pressure drop across the venturi scrubber and the venturi scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

- a. The pressure drop across the venturi scrubber, in inches of water, every 4 hours.
  - b. The venturi scrubber water flow rate, in gallons per minute, every 4 hours.
  - c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
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.
    - b. Documentation on whether or not each liquid organic material employed is a photochemically reactive material.

## IV. Reporting Requirements

1. The permittee shall submit 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 venturi scrubber.
  - b. The venturi scrubber water flow rate.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the following:
  - a. the rolling, 12-month limitation on the number of hours of operation;
  - b. the rolling, 12-month limitation on the PE; and
  - c. the rolling, 12-month limitation on the NOx emissions.
3. The permittee shall submit deviation (excursion) reports which identify each month during which a photochemically reactive material was employed in this emissions unit. The report shall be submitted within 45 days after the deviation occurs.
4. The permittee shall submit annual reports which summarize the actual annual emissions of particulates and NOx and the actual annual number of hours the emissions unit was in operation. The reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

#### **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:

2.65 lbs PE/hr, 11 lbs PE/tons of glass pulled, and 11.4 tons PE/rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section A.V.2 of the terms and conditions of this permit.

Compliance with the lbs PE/ton of glass limitation shall be demonstrated based upon the results of the stack testing required in section A.V.2 of each permit for emissions units P048-P052.

Compliance with the annual (tons PE/rolling, 12-month period) emission limitation shall be demonstrated based upon the record keeping requirements in section A.III of this permit.

**1.b** Emission Limitation:

20% opacity, as a 6-minute average, except as provided by rule

Applicable Compliance Method:

OAC rule 3745-17-03(B)(1)

**1.c** Emission Limitations:

1.93 lbs NOx/hr, 8.3 tons NOx/rolling, 12-month period

Applicable Compliance Method

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section A.V.2 of the terms and conditions of this permit.

Compliance with the annual (tons NOx/rolling, 12-month period) emission limitation shall be demonstrated based upon the record keeping requirements in section A.III of this permit.

## V. Testing Requirements (continued)

**1.d** Emission Limitation:

68.6 lbs SO<sub>2</sub>/hr

Applicable Compliance Method

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section A.V.2 of the terms and conditions of this permit.

**1.e** Emission Limitation:

8600 hours/rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hours restriction based upon the record keeping in section A.III of this permit.

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

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

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for: particulates, SO<sub>2</sub> and NO<sub>x</sub>.

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

PE

Method 5 & 5E of 40 CFR Part 60, Appendix A

NO<sub>x</sub>

Method 7 of 40 CFR Part 60, Appendix A

SO<sub>2</sub>

Method 6 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 appropriate Ohio EPA District Office or local air agency.

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

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

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

Facility Name: **Johns Manville: PLANT #8**  
Facility ID: **03-20-01-0005**  
Emissions Unit: **Unit 89 Collection Module C (P050)**

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass forming and collection zone w/ venturi wet scrubber; module A, line 89	OAC rule 3745-31-05 (PTI #03-0931)	4.47 lbs organic compounds (OC)/hr, 19.22 TPY OC  0.80 lb formaldehyde/hr, 3.44 TPY formaldehyde  1.2 lbs formaldehyde/ton glass pulled (for emissions units P048-P052 combined)  2.0 lbs sulfur dioxide (SO2)/hr, 8.6 TPY SO2  9.10 lbs carbon monoxide (CO)/hr, 39.13 TPY CO  1.66 lbs volatile organic compounds (VOC)/hr, 7.14 TPY VOC

**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**

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

## **V. Testing Requirements (continued)**

### **1.a Emission Limitations:**

4.47 lbs OC/hr, 19.22 TPY OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

### **1.b Emission Limitations:**

0.80 lb formaldehyde/hr, 3.44 TPY formaldehyde

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

### **1.c Emission Limitations:**

2.0 lbs SO<sub>2</sub>/hr, 8.6 TPY SO<sub>2</sub>

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section A.V.2 of the terms and conditions of this permit.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

### **1.d Emission Limitation:**

1.2 lbs formaldehyde/ton glass pulled

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emission limitation based upon the results of the stack testing specified in the terms and conditions of section B.V.2 of each permit for emissions units P048-P052.

## V. Testing Requirements (continued)

### 1.e Emission Limitations:

9.10 lbs CO lbs/hr, 39.13 TPY CO

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

### 1.f Emission Limitations:

1.66 lbs VOC/hr, 7.14 TPY VOC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit. .

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

## 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 expiration of this permit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for formaldehyde, VOC, OC, and CO.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

formaldehyde  
Method 316 of 40 CFR Part 60, Appendix A

VOC/OC  
Method 18, Method 25, or Method 25A of 40 CFR Part 60, Appendix A

CO  
Method 10 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 appropriate Ohio EPA District Office or local air agency.

## **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 appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

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

## **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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass cure oven w/ thermal incinerator; line 89	OAC rule 3745-31-05(D) (PTI #03-0931)	0.19 lb particulate emissions (PE)/hr  0.82 ton PE/rolling, 12-month period  10.54 lbs NOx/hr  45.32 tons NOx/rolling, 12-month period
	OAC rule 3745-17-07(A)	See section A.I.2.b. 20% opacity, as a 6-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(1)	See section A.I.2.a.
	40 CFR Subpart PPP	11.0 lbs PE/ton of glass pulled (for emissions units P048-P052 combined)
	OAC rule 3745-18-06	71.1 lbs sulfur dioxide (SO <sub>2</sub> )/hr
	OAC rule 3745-21-07(G)	exempt, pursuant to OAC rule 3745-21-07 (G)(9)(c)

**2. Additional Terms and Conditions**

- 2.a The PE limitation established based on this rule is less stringent than the limitation established pursuant to OAC rule 3725-31-05 (D).
- 2.b The NOx and PE limits were established to avoid PSD review in PTI #03-0931 as a result of the installation of a new fiberglass forming line.

**II. Operational Restrictions**

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

## II. Operational Restrictions (continued)

2. The permittee shall not employ any material in this emissions unit that does not comply with the following:
  - a. the volatile content of each material employed shall consist of only water and liquid organic material;
  - b. the liquid organic material shall comprise no more than 20% (by volume) of the volatile content; and
  - c. the volatile content of each material shall not be a photochemically reactive material.
3. 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.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain and record each month the following information for this emissions unit:
  - a. The number of hours of operation.
  - b. The rolling, 12-month summation of the number of hours this emissions unit was in operation.
  - c. The total particulate emissions, in pounds, calculated by multiplying the number of hours of operation (hours/day) from section 1.a by the hourly PE emissions rate (based on the results of the most recent stack testing).
  - d. The total NO<sub>x</sub> emissions, in pounds, calculated by multiplying the number of hours of operation (hours/day) from section 1.a by the hourly NO<sub>x</sub> emissions rate (based on the results of the most recent stack testing).
  - e. The rolling, 12-month summation of the monthly particulate emissions, in tons.
  - f. The rolling, 12-month summation of the monthly NO<sub>x</sub> emissions, in tons.
2. 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.
  - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
3. The permittee shall 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 deviation (excursion) reports which identify 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.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the following:
  - a. the rolling, 12-month limitation on the number of hours of operation;
  - b. the rolling, 12-month limitation on the PE; and
  - c. the rolling, 12-month limitation on the NOx emissions.
3. The permittee shall submit deviation (excursion) reports which identify each month during which a noncomplying material (see section A.II.2) was employed in this emissions unit. The report shall be submitted within 45 days after the deviation occurs.
4. The permittee shall submit annual reports which summarize the actual annual emissions of particulates and NOx and the actual annual number of hours the emissions unit was in operation. The reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

#### **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:

0.19 lb PE/hr, 11 lbs PE/tons of glass pulled, and 0.82 ton PE/rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section A.V.2 of the terms and conditions of this permit.

Compliance with the lbs PE/ton of glass limitation shall be demonstrated based upon the results of the stack testing required in section A.V.2 of each permit for emissions units P048-P052.

Compliance with the annual (tons PE/rolling, 12-month period) emission limitation shall be demonstrated based upon the record keeping requirements in section A.III of this permit.

**1.b** Emission Limitation:

20% opacity, as a 6-minute average, except as provided by rule

Applicable Compliance Method:

OAC rule 3745-17-03(B)(1)

**1.c** Emission Limitations:

10.54 lbs NOx/hr, 45.32 tons NOx/rolling, 12-month period

Applicable Compliance Method

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section A.V.2 of the terms and conditions of this permit.

Compliance with the annual (tons NOx/rolling, 12-month period) emission limitation shall be demonstrated based upon the record keeping requirements in section A.III of this permit.

## V. Testing Requirements (continued)

**1.d** Emission Limitation:

71.1 lbs SO<sub>2</sub>/hr

Applicable Compliance Method

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section A.V.2 of the terms and conditions of this permit.

**1.e** Emission Limitation:

8600 hours/rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hours restriction based upon the record keeping in section A.III of this permit.

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

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

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for: particulates, SO<sub>2</sub> and NO<sub>x</sub>.

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

PE

Method 5 & 5E of 40 CFR Part 60, Appendix A

NO<sub>x</sub>

Method 7 of 40 CFR Part 60, Appendix A

SO<sub>2</sub>

Method 6 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 appropriate Ohio EPA District Office or local air agency.

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

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

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

Facility Name: **Johns Manville: PLANT #8**  
Facility ID: **03-20-01-0005**  
Emissions Unit: **Unit 89 Curing Oven (P051)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass cure oven w/ thermal incinerator; line 89	OAC rule 3745-31-05 (PTI #03-0931)	0.55 lb organic compounds (OC)/hr, 2.37 TPY OC  0.50 lb formaldehyde/hr, 2.15 TPY formaldehyde  1.2 lbs formaldehyde/ton glass pulled (for emissions units P048-P052 combined)  0.5 lb sulfur dioxide (SO <sub>2</sub> )/hr, 2.15 TPY SO <sub>2</sub>  2.01 lbs carbon monoxide (CO)/hr, 8.64 TPY CO  0.21 lb volatile organic compounds (VOC)/hr, 0.9 TPY VOC

**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**

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

## V. Testing Requirements (continued)

**1.a** Emission Limitations:  
0.55 lb OC/hr, 2.37 TPY OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

**1.b** Emission Limitations:

0.50 lb formaldehyde/hr, 2.15 TPY formaldehyde

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

**1.c** Emission Limitations:

0.50 lbs SO<sub>2</sub>/hr, 2.15 TPY SO<sub>2</sub>

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section A.V.2 of the terms and conditions of this permit.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

**1.d** Emission Limitation:

1.2 lbs formaldehyde/ton glass pulled

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emission limitation based upon the results of the stack testing specified in the terms and conditions of section B.V.2 of each permit for emissions units P048-P052.

## V. Testing Requirements (continued)

- 1.e** Emission Limitations:  
2.01 lbs CO lbs/hr, 8.64 TPY CO

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

- 1.f** Emission Limitations:  
0.21 lb VOC/hr, 0.90 TPY VOC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit. .

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

- 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 expiration of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for formaldehyde, VOC, OC, and CO.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

formaldehyde  
Method 316 of 40 CFR Part 60, Appendix A

VOC/OC  
Method 18, Method 25, or Method 25A of 40 CFR Part 60, Appendix A

CO  
Method 10 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 appropriate Ohio EPA District Office or local air agency.

**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 appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

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

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass cooling table w/ venturi wet scrubber; line 89	OAC rule 3745-31-05(D) (PTI #03-0931)	0.57 lb particulate emissions (PE)/hr  2.45 ton PE/rolling, 12-month period  See section A.I.2.b.
	OAC rule 3745-17-07(A)	20% opacity, as a 6-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(1)	See section A.I.2.a.
	40 CFR Subpart PPP	11.0 lbs PE/ton of glass pulled (for emissions units P048-P052 combined)

##### 2. Additional Terms and Conditions

- 2.a The PE limitation established based on this rule is less stringent than the limitation established pursuant to OAC rule 3725-31-05 (D).
- 2.b The PE limits were established to avoid PSD review in PTI #03-0931 as a result of the installation of a new fiberglass forming line.

##### II. Operational Restrictions

1. The maximum annual operating hours for this emissions unit shall not exceed 8600, based upon a rolling, 12-month summation of the monthly number of hours of operation for this emissions unit.
2. The venturi 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.
3. The pressure drop across the venturi 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.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain and record each month the following information for this emissions unit:
  - a. The number of hours of operation.
  - b. The rolling, 12-month summation of the number of hours this emissions unit was in operation.
  - c. The total particulate emissions, in pounds, calculated by multiplying the number of hours of operation (hours/day) from section 1.a by the hourly PE emissions rate (based on the results of the most recent stack testing).
  - d. The rolling, 12-month summation of the monthly particulate emissions, in tons.
2. The permittee shall properly install, operate and maintain equipment to continuously monitor the static pressure drop across the venturi scrubber and the venturi scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

- a. The pressure drop across the venturi scrubber, in inches of water, every 4 hours.
- b. The venturi scrubber water flow rate, in gallons per minute, every 4 hours.
- c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

### IV. Reporting Requirements

1. The permittee shall submit 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 venturi scrubber.
  - b. The venturi scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the following:
  - a. the rolling, 12-month limitation on the number of hours of operation; and
  - b. the rolling, 12-month limitation on the PE.
3. The permittee shall submit annual reports which summarize the actual annual emissions of particulates and the actual annual number of hours the emissions unit was in operation. The reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

### 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 Limitations:

0.57 lb PE/hr, 11 lbs PE/tons of glass pulled, and 2.45 tons PE/rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section A.V.2 of the terms and conditions of this permit.

Compliance with the lbs PE/ton of glass limitation shall be demonstrated based upon the results of the stack testing required in section A.V.2 of each permit for emissions units P048-P052.

Compliance with the annual (tons PE/rolling, 12-month period) emission limitation shall be demonstrated based upon the record keeping requirements in section A.III of this permit.

### 1.b Emission Limitation:

20% opacity, as a 6-minute average, except as provided by rule

Applicable Compliance Method:

OAC rule 3745-17-03(B)(1)

### 1.c Emission Limitation:

8600 hours/rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hours restriction based upon the record keeping in section A.III of this permit.

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

- a. The emission testing shall be conducted within 6 months prior to expiration of this permit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for: particulates, SO<sub>2</sub> and NO<sub>x</sub>.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

PE  
Method 5 & 5E of 40 CFR Part 60, Appendix A

NO<sub>x</sub>  
Method 7 of 40 CFR Part 60, Appendix A

SO<sub>2</sub>  
Method 6 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 appropriate Ohio EPA District Office or local air agency.

## **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 appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

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

## **VI. Miscellaneous Requirements**

1. **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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass cooling table w/ venturi wet scrubber; line 89	OAC rule 3745-31-05 (PTI #03-0931)	1.04 lbs organic compounds (OC)/hr, 4.47 TPY OC  0.35 lb formaldehyde/hr, 1.51 TPY formaldehyde  1.2 lbs formaldehyde/ton glass pulled (for emissions units P048-P052 combined)  1.66 lbs volatile organic compounds (VOC)/hr, 7.14 TPY VOC

**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**

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

**1.a Emission Limitations:**

1.04 lbs OC/hr, 4.47 TPY OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

**V. Testing Requirements (continued)**

**1.b** Emission Limitations:

0.35 lb formaldehyde/hr, 1.51 TPY formaldehyde

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit.

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

**1.c** Emission Limitation:

1.2 lbs formaldehyde/ton glass pulled

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emission limitation based upon the results of the stack testing specified in the terms and conditions of section B.V.2 of each permit for emissions units P048-P052.

**1.d** Emission Limitations:

1.66 lbs VOC/hr, 7.14 TPY VOC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack testing specified in section B.V.2 of the terms and conditions of this permit. .

Compliance with the annual emission limitation will be assumed as long as compliance with the hourly emission limitation and the annual number of hours of operation restriction are maintained [the annual emission limitation is based upon multiplying the hourly emission limitation by the annual number of hours of operation restriction (8600) and dividing by 2000].

## V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 6 months prior to expiration of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for formaldehyde, VOC, OC, and CO.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):  
  
formaldehyde  
Method 316 of 40 CFR Part 60, Appendix A  
  
VOC/OC  
Method 18, Method 25, or Method 25A of 40 CFR Part 60, Appendix A  
  
CO  
Method 10 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 appropriate Ohio EPA District Office or local air agency.
3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

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

## 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass internal cullet silo and bucket elevator w/ baghouse; line 89	OAC rule 3745-31-05 (PTI # 03-0931)	0.10 lb particulate emissions (PE)/hr
		0.10 ton PE/rolling, 12-month period
		See A.I.2.b.
		See A.II.
	OAC rule 3745-17-11(B)(1)	See A.I.2.a.
	OAC rule 3745-17-07(A)	20% opacity, as a 6-minute average, except as provided by rule

##### 2. Additional Terms and Conditions

- 2.a The particulate emission limitation established by this rule is less stringent than the limit established pursuant to OAC rule 3725-31-05 (BAT) and contained in PTI #03-0931.
- 2.b The PE limits were established to avoid PSD review in PTI #03-0931 as a result of the installation of a new fiberglass forming line.

##### II. Operational Restrictions

1. The maximum annual operating hours for this emissions unit shall not exceed 2000, based upon a rolling, 12-month summation of the number of hours of operation for this emissions unit.
2. The pressure drop across the baghouse shall be maintained within the range of 2 to 4 inches of water while the emissions unit is in operation.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain and record each month the following information for this emissions unit:
  - a. The number of hours of operation.
  - b. The rolling, 12-month summation of the number of hours this emissions unit was in operation.
  - c. The total particulate emissions, in pounds, calculated by multiplying the number of hours of operation (hours/day) from section 1.a by the hourly PE emissions rate [the hourly PE emissions rate shall be calculated by multiplying an emission factor of 0.02\* grain PE/ actual cubic feet (acf) by the maximum flow rate of the exhaust gas from the silos' dust collector (565 acfm) and multiplying by 60 and dividing by 7000].
  - d. The rolling, 12-month summation of the monthly particulate emissions, in tons.

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

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the following:
  - a. the rolling, 12-month limitation on the number of hours of operation; and
  - b. the rolling, 12-month limitation on the PE.
2. The permittee shall submit annual reports which summarize the actual annual emissions of particulates and the actual annual number of hours the emissions unit was in operation. The reports shall be submitted by January 31 of each year and shall cover the previous calendar year.
3. The permittee shall submit 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.

### 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:  
0.10 lb PE/hr and 0.10 ton PE/12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation by multiplying an emission factor of 0.02\* grain PE/ actual cubic feet (acf) by the maximum flow rate of the exhaust gas from the silos' dust collector (565 acfm) and multiplying by 60 and dividing by 7000.

Compliance with the annual (tons PE/rolling, 12-month period) emission limitation shall be demonstrated based upon the record keeping requirements in section A.III of this permit.

\* based on information supplied by the manufacturer

**V. Testing Requirements (continued)**

**1.b** Emission Limitation:

2000 hours/rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual number of hours restriction based upon the record keeping in section A.III of this permit.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass internal cullet silo and bucket elevator w/ baghouse; line 89	OAC rule 3175-31-05 (PTI # 03-0931)	0% opacity, as a 6-minute average

**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**

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

**1.a Emission Limitation:**

0% opacity, as a 6-minute average

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass external cullet silo and bucket elevator w/ baghouse; line 89	OAC rule 3745-31-05 (PTI # 03-0931)	0.10 lb particulate emissions (PE)/hr  0.10 ton PE/rolling, 12-month period  See A.I.2.b.  See A.II.
	OAC rule 3745-17-11(B)(1)	See A.I.2.a.
	OAC rule 3745-17-07(A)	20% opacity, as a 6-minute average, except as provided by rule

**2. Additional Terms and Conditions**

- 2.a The particulate emission limitation established by this rule is less stringent than the limit established pursuant to OAC rule 3725-31-05 (BAT) and contained in PTI #03-0931.
- 2.b The PE limits were established to avoid PSD review in PTI #03-0931 as a result of the installation of a new fiberglass forming line.

**II. Operational Restrictions**

1. The maximum annual operating hours for this emissions unit shall not exceed 2000, based upon a rolling, 12-month summation of the number of hours of operation for this emissions unit.
2. The pressure drop across the baghouse shall be maintained within the range of 2 to 4 inches of water while the emissions unit is in operation.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain and record each month the following information for this emissions unit:
  - a. The number of hours of operation.
  - b. The rolling, 12-month summation of the number of hours this emissions unit was in operation.
  - c. The total particulate emissions, in pounds, calculated by multiplying the number of hours of operation (hours/day) from section 1.a by the hourly PE emissions rate [the hourly PE emissions rate shall be calculated by multiplying an emission factor of 0.02\* grain PE/ actual cubic feet (acf) by the maximum flow rate of the exhaust gas from the silos' dust collector (565 acfm) and multiplying by 60 and dividing by 7000].
  - d. The rolling, 12-month summation of the monthly particulate emissions, in tons.

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

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the following:
  - a. the rolling, 12-month limitation on the number of hours of operation; and
  - b. the rolling, 12-month limitation on the PE.
2. The permittee shall submit annual reports which summarize the actual annual emissions of particulates and the actual annual number of hours the emissions unit was in operation. The reports shall be submitted by January 31 of each year and shall cover the previous calendar year.
3. The permittee shall submit 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.

### 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:  
0.10 lb PE/hr and 0.10 ton PE/12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation by multiplying an emission factor of 0.02\* grain PE/ actual cubic feet (acf) by the maximum flow rate of the exhaust gas from the silos' dust collector (565 acfm) and multiplying by 60 and dividing by 7000.

Compliance with the annual (tons PE/rolling, 12-month period) emission limitation shall be demonstrated based upon the record keeping requirements in section A.III of this permit.

\* based on information supplied by the manufacturer

**V. Testing Requirements (continued)**

**1.b** Emission Limitation:

2000 hours/rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual number of hours restriction based upon the record keeping in section A.III of this permit.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass external cullet silo and bucket elevator w/ baghouse; line 89	OAC rule 3175-31-05 (PTI # 03-0931)	0% opacity, as a 6-minute average

**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**

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

**1.a Emission Limitation:**

0% opacity, as a 6-minute average

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** Unit 88 - NG Searing Rolls (Z009)  
**Activity Description:** Searing rolls.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass sear rolling operation w/ high energy air filtration (HEAF) unit; unit #88 sear roll	OAC rule 3745-17-11 (B)(1)	3.23 lbs particulate emissions (PE)/hr
	OAC rule 3745-17-07 (A)	20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-21-07 (G)	none (see A.II.4)

2. **Additional Terms and Conditions**  
 None

**II. Operational Restrictions**

1. 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.
2. The filter media used in the HEAF unit to control PE and OC emissions 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.
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.
4. The permittee shall not employ any liquid organic material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01 (C)(5).

**III. Monitoring and/or Record Keeping Requirements**

1. 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;
  - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

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

2. 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 its associated duct work.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify each month during which a photochemically reactive material was employed in this emissions unit. The report shall be submitted within 45 days after the deviation occurs.
2. The permittee shall notify the Director (the appropriate District Office or local air agency) 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 appropriate District Office or local air agency) within 30 days after the event occurs.

### 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:  
3.23 lbs PE/hr  
  
Applicable Compliance Method:  
Compliance with the emission limit of 3.23 lbs PE/hr shall be based upon the results of the stack testing required in section A.V.2 of this permit.
  - 1.b Emission Limitation:  
20% opacity, as a 6-minute average, except as provided by rule  
  
Applicable Compliance Method:  
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 3 months after the issuance of this permit and within 6 months prior to the permit renewal.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.
  - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: Method 5 of 40 CFR Part 60, Appendix A.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

## **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 appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

## **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. The permittee shall perform the following in order to bring this emissions unit into compliance:
  - a. submit a complete PTI application within 2 months following the issuance of this permit; and
  - b. obtain a PTI within 8 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.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping 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 - Electric Curing Platen Press (Z010)

**Activity Description:** Electric platen press.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
fiberglass electric curing operation w/ high energy air filtration (HEAF) unit; unit #88 platen press	OAC rule 3745-17-11 (B)(1)	3.23 lbs particulate emissions (PE)/hr
	OAC rule 3745-17-07 (A)	20% opacity, as a 6-minute average, except as provided by rule
	OAC rule 3745-21-07 (G)	exempt, pursuant to OAC rule 3745-21-07 (G)(9)(c)

**2. Additional Terms and Conditions**

**None**

**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.
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.
3. The filter media used in the HEAF unit to control PE and OC emissions 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.
4. 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.

### 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).
2. 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 its associated duct work.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify each month during which a noncomplying material (see section A.II.1) was employed in this emissions unit. The report shall be submitted within 45 days after the deviation occurs.
2. The permittee shall notify the Director (the appropriate District Office or local air agency) 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 appropriate District Office or local air agency) within 30 days after the event occurs.

### 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:  
3.23 lbs PE/hr  
  
Applicable Compliance Method:  
Compliance with the emission limit of 3.23 lbs PE/hr shall be based upon the results of the stack testing required in section A.V.2 of this permit.
  - 1.b Emission Limitation:  
20% opacity, as a 6-minute average, except as provided by rule  
  
Applicable Compliance Method:  
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 3 months after the issuance of this permit and within 6 months prior to the permit renewal.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.
  - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: Method 5 of 40 CFR Part 60, Appendix A.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

## **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 appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

## **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. The permittee shall perform the following in order to bring this emissions unit into compliance:
  - a. submit a complete PTI application within 2 months following the issuance of this permit; and
  - b. obtain a PTI within 8 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.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping 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 - Spray Coater & Drying Oven (Z011)

**Activity Description:** Fiber glass spray coater.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
spray coater and drying oven with high energy air filtration (HEAF) unit; unit 88	OAC rule 3745-21-07 (G)	none (see condition A.II.1)
	OAC rule 3745-17-11(B)(1)	0.551 lb particulate emissions (PE)/hr
	OAC rule 3745-17-07 (A)	20% opacity, as a 6-minute average, except as provided by rule

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

1. The permittee shall not employ any coating and/or cleanup material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).
2. The permittee shall operate the filtration system (HEAF) when this emissions unit is in operation.

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain the following information each month for this emissions unit:
  - a. The company identification for each coating and cleanup material employed in this emissions unit.
  - b. Documentation on whether or not each coating and cleanup material employed is a photochemically reactive material.
2. The permittee shall document whether or not the the filtration system was in service when the emissions unit was in operation.

**IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which identify each month during which a photochemically reactive coating and/or cleanup material was employed. The report shall be submitted within 45 days after the deviation occurs.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record showing that the filtration system 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 appropriate District Office or local air agency) within 30 days after the event occurs.

#### **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:  
0.551 lb PE/hr

Applicable Compliance Method:

To determine the actual worst case particulate emissions rate (E), the following equation shall be used for the paint spraying operations:

$E =$  particulate emissions rate (lbs/hr)

$E =$  maximum coating solids usage rate, in pounds per hour  $\times$  (1-TE)  $\times$  (1-CE)

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (60% considering 40 CFR 60.453)

CE = control efficiency (assumed to be 70%, considering Ohio EPA RACM, Supplement 1)

If required, the permittee shall demonstrate compliance with the above emissions limit pursuant to OAC rule 3745-17-03(B)(10).

- 1.b Emission Limitation:  
20% opacity, as a six-minute average, except as provided by rule

Applicable Compliance Method:

OAC 3745-17-03(B)(1)

#### **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. The permittee shall perform the following in order to bring this emissions unit into compliance:
  - a. submit a complete PTI application within 2 months following the issuance of this permit; and
  - b. obtain a PTI within 8 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.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping 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 : all (Z028)  
**Activity Description:** Process Water Treatment

#### 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
process water treatment pond w/ 2 hydrofloat coagulation/ flocculation tanks	OAC rule 3745-21-07(G)	none (see A.II.1)

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

1. The permittee shall not employ any liquid organic material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01 (C)(5).

##### III. Monitoring and/or Record Keeping Requirements

1. 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;
  - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

##### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify each month during which a photochemically reactive material was employed in this emissions unit. The report shall be submitted within 45 days after the deviation occurs.

##### 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. The permittee shall perform the following in order to bring this emissions unit into compliance:
  - a. submit a complete PTI application within 2 months following the issuance of this permit; and
  - b. obtain a PTI within 8 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.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping 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:** Air Make - Up Unit (Z904)

**Activity Description:** Air make up unit.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
11.5 MMBtu/hr natural gas fired air make-up unit; Aerovent G609BD	OAC rule 3745-17-11 (B)(5)(b)	0.020 lb particulate emissions (PE)/MMBtu heat input
	OAC rule 3745-17-07 (A)	20% opacity, as a 6-minute average, except as provided by rule

**2. Additional Terms and Conditions**

- 2.a Since natural gas is the only fuel fired in this emissions unit, OAC Chapter 3745-18 is not applicable. Hence, there is no SO<sub>2</sub> emission limitation [based on OAC Chapter 3745-18] for this emissions unit.

**II. Operational Restrictions**

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

**III. Monitoring and/or Record Keeping Requirements**

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

**IV. Reporting Requirements**

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

**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:  
0.020 lb PE/MMBtu heat input

Applicable Compliance Method:

Compliance with the emission limitation of 0.020 lb PE/MMBtu shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu.ft/hr) by the AP-42 Fifth Edition, Table 1.4-1 emission factor for natural gas of 1.9 lbs PE (filtrable)/mmscf and dividing by the maximum hourly heat input capacity of the emissions unit (11.5 mmBtu/hr).

If required, the permittee shall demonstrate compliance pursuant to OAC rule 3745-17-03(B)(9).

**1.b** Emission Limitation:  
20% opacity, as a 6-minute average, except as provided by rule

Applicable Compliance Method:

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.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping 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:** Air Make - Up Unit (Z908)

**Activity Description:** Air make up unit.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
11.5 MMBtu/hr natural gas-fired air make-up unit	OAC rule 3745-17-11 (B)(5)(b)	0.020 lb particulate emissions (PE)/MMBtu heat input
	OAC rule 3745-17-07 (A)	20% opacity, as a 6-minute average, except as provided by rule

##### 2. Additional Terms and Conditions

- 2.a Since natural gas is the only fuel fired in this emissions unit, OAC Chapter 3745-18 is not applicable. Hence, there is no SO<sub>2</sub> emission limitation [based on OAC Chapter 3745-18] for this emissions unit.

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

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

##### IV. Reporting Requirements

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

##### V. Testing Requirements

- 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:  
0.020 lb PE/MMBtu heat input

Applicable Compliance Method:

Compliance with the emission limitation of 0.020 lb PE/MMBtu shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu.ft/hr) by the AP-42 Fifth Edition, Table 1.4-1 emission factor for natural gas of 1.9 lbs PE (filtrable)/mmscf and dividing by the maximum hourly heat input capacity of the emissions unit (11.5 mmBtu/hr).

If required, the permittee shall demonstrate compliance pursuant to OAC rule 3745-17-03(B)(9).

**1.b** Emission Limitation:  
20% opacity, as a 6-minute average, except as provided by rule

Applicable Compliance Method:

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.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping 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:** Air Make - Up Unit (Z911)

**Activity Description:** Air make up unit.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
11.5 MMBtu/hr natural gas-fired air make-up unit	OAC rule 3745-17-11 (B)(5)(b)	0.020 lb particulate emissions (PE)/MMBtu heat input
	OAC rule 3745-17-07 (A)	20% opacity, as a 6-minute average, except as provided by rule

##### 2. Additional Terms and Conditions

- 2.a Since natural gas is the only fuel fired in this emissions unit, OAC Chapter 3745-18 is not applicable. Hence, there is no SO<sub>2</sub> emission limitation [based on OAC Chapter 3745-18] for this emissions unit.

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

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

##### IV. Reporting Requirements

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

##### V. Testing Requirements

- 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:  
0.020 lb PE/MMBtu heat input

Applicable Compliance Method:

Compliance with the emission limitation of 0.020 lb PE/MMBtu shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu.ft/hr) by the AP-42 Fifth Edition, Table 1.4-1 emission factor for natural gas of 1.9 lbs PE (filtrable)/mmscf and dividing by the maximum hourly heat input capacity of the emissions unit (11.5 mmBtu/hr).

If required, the permittee shall demonstrate compliance pursuant to OAC rule 3745-17-03(B)(9).

**1.b** Emission Limitation:  
20% opacity, as a 6-minute average, except as provided by rule

Applicable Compliance Method:

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.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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