



State of Ohio Environmental Protection Agency

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Columbus, OH 43216-1049

07/24/02

**CERTIFIED MAIL**

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

04-48-00-0012

Johns Manville International, Inc. / Plant #01 - wtv1  
Steven A. Shelt  
6050 River Road  
Waterville, OH 45366

Dear Steven A. Shelt:

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 Toledo Div of Environmental Services 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 Toledo Div of Environmental Services.**

Very truly yours,

Thomas G. Rigo, Manager  
Field Operations and Permit Section  
Division of Air Pollution Control

cc: USEPA (electronically submitted)  
File, DAPC PMU  
Toledo Div of Environmental Services



State of Ohio Environmental Protection Agency

DRAFT TITLE V PERMIT

Issue Date: 07/24/02	Effective Date: To be entered upon final issuance	Expiration Date: To be entered upon final issuance
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This document constitutes issuance of a Title V permit for Facility ID: 04-48-00-0012 to:  
 Johns Manville International, Inc. / Plant #01 - wtv1  
 6050 River Road  
 Waterville, OH 43566

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

P001 (Direct Melt Fiberglass Furnace 9211) Direct Melt Recuperative Furnace 9211, (Installation/startup dates estimated)	P015 (Wet process fiber glass mat oven ) Fiber blend mat line - produces bonded non-woven fibrous mat.	direct melt furnace 9212, (Installation/startup dates estimated)
P013 (Direct Melt Fiberglass Furnace 9212) Fiber glass Direct Melt Furnace 9212	P017 (Recycling Area Dryer) 5.8 MMBtu/hr dryer used in recycling area for	P045 (9212 Dryer Line 4) Oven for Furnace 12 line 4

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

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

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

OHIO ENVIRONMENTAL PROTECTION AGENCY

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Christopher Jones  
 Director

## PART I - GENERAL TERMS AND CONDITIONS

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

#### 1. **Monitoring and Related Record Keeping and Reporting Requirements**

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

- i. The date, place (as defined in the permit), and time of sampling or measurements.
- ii. The date(s) analyses were performed.
- iii. The company or entity that performed the analyses.
- iv. The analytical techniques or methods used.
- v. The results of such analyses.
- vi. The operating conditions existing at the time of sampling or measurement.

*(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))*

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

*(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))*

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

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

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

ii. **For emission limitations, operational restrictions, and control device operating parameter limitations:**

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

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

*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i), (ii) and (iii))*

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

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

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

*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(iii))*

iii. **For monitoring, record keeping, and reporting requirements:**

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

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

*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii))*

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

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

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

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

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

## **3. Risk Management Plans**

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

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

## **4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

*(Authority for term: OAC rule 3745-77-07(A)(5))*

## **5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

*(Authority for term: OAC rule 3745-77-07(A)(6))*

## **6. General Requirements**

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

- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

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

**7. Fees**

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

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

**8. Marketable Permit Programs**

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

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

**9. Reasonably Anticipated Operating Scenarios**

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

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

**10. Reopening for Cause**

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

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

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

## **11. Federal and State Enforceability**

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

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

## **12. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

- i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
- i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
  - ii. Compliance certifications shall include the following:
    - (a) An identification of each term or condition of this permit that is the basis of the certification.
    - (b) The permittee's current compliance status.
    - (c) Whether compliance was continuous or intermittent.
    - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
    - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
  - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

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

### **13. Permit Shield**

- a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

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

#### **14. Operational Flexibility**

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

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

#### **15. Emergencies**

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

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

#### **16. Off-Permit Changes**

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

- a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.
- b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as

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

- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

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

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

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

#### **17. Compliance Method Requirements**

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

*(This term is provided for informational purposes only.)*

#### **18. Insignificant Activities**

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.

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

#### **19. Permit to Install Requirement**

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

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

#### **20. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

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

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

### **1. Reporting Requirements Related to Monitoring and Record Keeping Requirements**

The permittee shall submit required reports in the following manner:

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

### **2. Records Retention Requirements**

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

### **3. Inspections and Information Requests**

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

shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**4. Scheduled Maintenance/Malfunction Reporting**

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

**5. Permit Transfers**

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

**6. Additional Reporting Requirements When There Are No Deviations of 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:

R001 - small maintenance paint booth;  
B004 - Dravo makeup air heater - 0.75 mmBtu/hr boiler;  
B005 - boiler (Erie City, gas fired) - 2.23 mmBtu/hr boiler;  
B007 - boiler (Amesteam, gas fired) - 2.0 mmBtu/hr boiler;  
B009 - boiler (Cleaver Brooks) - 4.2 mmBtu/hr boiler;  
B011 - entrained combustion boiler (9F2-C) #7 boiler - 1.0 mmBtu/hr oven;  
B014 - WIC heat generator - 1.5 mmBtu;  
B016 - boiler - 6.3 mmBtu/hr boiler;  
F004 - batch silos and rail car unloading;  
F005 - truck unloading;  
F006 - day bins;  
P011 - mix tanks & raw material stoorage;  
P016 - Kolene salt bath - caustic cleaning solution;  
P018 - Tempstran bag opening station - unloading of tempstran for mats w/ baghouse;  
P019 - batch oven #1 - 1.0 mmBtu/hr oven;  
P020 - batch oven #2 - 1.0 mmBtu/hr oven;  
P021 - batch oven #3 - 1.0 mmBtu/hr oven;  
P022 - batch oven #4 - 1.0 mmBtu/hr oven;  
P023 - batch oven #5 - 1.0 mmBtu/hr oven;  
P024 - batch oven #6 - 1.0 mmBtu/hr oven;  
P025 - 9212 generator - 750 hp diesel generator;  
P026 - TP chop, fluidized bed dryer #1 - 1.9 mmBtu/hr dryer;  
P027 - developmental pre-bake oven - 1.0 mmBtu/hr oven;  
P028 - TP chop, fluidized bed dryer line 2 - 1.9 mmBtu/hr dryer;  
P029 - pre-bake tunnel oven A - 8.0 mmBtu/hr oven;  
P030 - pre-bake tunnel oven B - 8.0 mmBtu/hr oven;  
P031 - afterbake tunnel oven - 2.0 mmBtu oven;  
P032 - finishing dust control - finishing dust control w/ baghouse;  
P033 - finishing dielectric oven - finishing dried cakes;  
P037 - direct chop oven #1 - 3.0 mmBtu/hr burner;  
P038 - direct chop oven #2 - 3.0 mmBtu/hr burner;

**B. State Only Enforceable Section (continued)**

- P039 - direct chop oven #3 - 3.0 mmBtu/hr burner;
- P040 - direct chop oven #4 - 3.0 mmBtu/hr burner;
- P041 - air classifier line 5 and bagger - classifier 9212 line 5;
- P042 - air classifier line 6 and bagger - classifier 9212 line 6;
- P043 - air classifier line 7 and bagger - classifier 9212 line 7;
- P044 - air classifier line 8 and bagger - classifier 9212 line 8;
- P046 - small scale T-glass #1 - melting and forming for marble melt T-glass;
- P047 - small scale T-glass #2 - melting and forming for marble melt T-glass;
- P048 - small scale T-glass #3 - melting and forming for marble melt T-glass;
- P049 - small scale T-glass #4 - melting and forming for marble melt T-glass;
- P050 - small scale T-glass #5 - melting and forming for marble melt T-glass;
- P051 - small scale T-glass #6 - melting and forming for marble melt T-glass; and
- P052 - small scale T-glass #7 - melting and forming for marble melt T-glass.

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:** Direct Melt Fiberglass Furnace 9211 (P001)

**Activity Description:** Direct Melt Recuperative Furnace 9211, (Installation/startup dates estimated)

#### 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>
Glass melting furnace, oven 9211, natural gas and oxygen-fired	OAC rule 3745-31-05(A)(3) (PTI 04-975)	9 lbs/hr of particulate emissions; 39 tpy of particulate emissions as a rolling, 12-month summation; and 1.3 lbs of particulate emissions per ton of glass pulled from all of the equipment comprising this emissions unit
Particulate emissions from the furnace are controlled by a fabric filter and fluoride emissions are controlled by a spray tower with a 50% caustic solution (NaOH).		19 lbs/hr of sulfur dioxide (SO <sub>2</sub> ); 84 tpy of SO <sub>2</sub> as a rolling, 12-month summation; and 2.8 lbs of SO <sub>2</sub> per ton of glass pulled from all of the equipment comprising this emissions unit
Forehearth emissions are uncontrolled and have been included in the emission limitations.		24 lbs/hr of nitrogen oxides (NO <sub>x</sub> ); 107 tpy of NO <sub>x</sub> as a rolling, 12-month summation; and 3.6 lbs of NO <sub>x</sub> per ton of glass pulled from all of the equipment comprising this emissions unit
Forming room emissions are uncontrolled and have been included in the emission limitations.		2.3 lbs/hr of carbon monoxide (CO); 10.2 tpy of CO as a rolling, 12-month summation; and 0.34 lb of CO per ton of glass pulled from all of the equipment comprising this emissions unit
		7.3 lbs/hr of volatile organic compounds (VOC); 32 tpy of VOC as a rolling, 12-month summation; and 1.0 lb of VOC per ton of glass pulled from all of the equipment comprising this emissions unit

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
		11.0 lbs/hr of fluorides; 47 tpy of fluorides as a rolling, 12-month summation; and 1.6 lbs of fluorides per ton of glass pulled from all of the equipment comprising this emissions unit
		1.0 lb/hr of methanol; 4.5 tpy of methanol as a rolling, 12-month summation; and 0.15 lb of methanol per ton of glass pulled from all of the equipment comprising this emissions unit
		See sections A.I.2.a, A.I.2.b, and A.I.2.c.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	See section A.I.2.d.
	OAC rule 3745-18-06(E)	See section A.I.2.d.
	OAC rule 3745-21-08(B)	See section A.I.2.f.
	OAC rule 3745-23-06(B)	See section A.I.2.f.

**2. Additional Terms and Conditions**

- 2.a** The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).
- 2.b** The permittee shall only employ fuel in this emissions unit with a sulfur content that is less than or equal to 0.5 percent sulfur.
- 2.c** The hourly methanol emission limitation was established by modeling and is greater than the potential to emit for this emissions unit; therefore, no monitoring, record keeping, reporting, or testing terms and conditions are necessary for this limitation.
- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.e** The NaOH solution employed in the spray tower shall be a minimum of 50% NaOH by volume.
- 2.f** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-975.

## II. Operational Restrictions

1. The maximum operating rate for this emissions unit shall not exceed 179 tons of glass pulled per day.
2. The permittee shall burn only natural gas as fuel in this emissions unit.
3. The permittee shall operate the baghouse and caustic spray tower whenever this emissions unit is in operation.
4. The pressure drop across the baghouse shall be maintained within the range of 2.5 to 3.5 inches of water column while the emissions unit is in operation.
5. The flow rate of NaOH (50% by volume) to the spray tower shall be greater than 16.7 gallons per hour.
6. The water flow rate to the spray tower shall be greater than 300 gallons per hour.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain daily records of the glass pulled in this emissions unit, in tons.
2. 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.
3. The permittee shall maintain daily records of the volume of natural gas burned in the forehearth, in millions of standard cubic feet.
4. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

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

- a. the pressure drop across the baghouse, in inches of water, on an hourly basis; and
  - b. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
5. The permittee shall properly operate and maintain equipment to continuously monitor the NaOH flow rate and the water flow rate to the spray tower 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 gallons of the NaOH solution pumped to the spray tower;
- b. the flow rate of water to the spray tower, in gallons per hour;
- c. the total hours of operation of this emissions unit and the spray tower;
- d. the average flow rate of NaOH to the spray tower, in gallons per hour, i.e., (a)/(c); and
- e. the % of NaOH, by volume, in the NaOH solution pumped to the spray tower.

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

6. 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 stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

### **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.
2. The permittee shall submit quarterly deviation (excursion) reports that identify each day when the maximum glass pull rate limitation was exceeded in this emissions unit.
3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following spray tower parameters were not maintained at or above the required levels:
  - a. the water flow rate to the spray tower;
  - b. the NaOH flow rate to the spray tower; and
  - c. the % NaOH, by volume, in the NaOH solution employed.
5. The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.
6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

### **V. Testing Requirements**

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

**V. Testing Requirements (continued)**

**1.a** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 9 lbs of particulate emissions per hour.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10).

**1.b** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 1.3 lbs of particulate emissions per ton of glass pulled.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10).

**1.c** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 39 tons of particulate emissions per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly particulate emission limitation (9 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.d** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 2.3 lbs of CO per hour.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 10 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the CO emissions.)

**1.e** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 0.34 lb of CO per ton of glass pulled.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 10 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the CO emissions.)

**V. Testing Requirements (continued)**

**1.f** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 10.2 tons of CO per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly CO emission limitation (2.3 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.g** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 24 lbs/hr of NOx.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 7 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the NOx emissions.)

**1.h** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 3.6 lbs of NOx per ton of glass pulled.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 7 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the NOx emissions.)

**1.i** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 107 tons of NOx per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly NOx emission limitation (24 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.j** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 19 lbs/hr of SO2.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 6 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the SO2 emissions.)

**V. Testing Requirements (continued)**

**1.k** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 2.8 lbs of SO<sub>2</sub> per ton of glass pulled.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 6 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the SO<sub>2</sub> emissions.)

**1.l** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 84 tons of SO<sub>2</sub> per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly SO<sub>2</sub> emission limitation (19 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.m** Emission Limitations:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 7.3 lbs/hr of VOC.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 25 of 40 CFR Part 60, Appendix A.

**1.n** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 1.0 lb of VOC per ton of glass pulled.

Applicable Compliance Methods:

If required, compliance shall be demonstrated based upon emission testing performed in accordance with the methods and procedures of Method 25 of 40 CFR Part 60 Appendix A.

**1.o** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 32 tons of VOC per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly VOC emission limitation (7.3 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**V. Testing Requirements (continued)**

**1.p** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 11 lbs of fluoride emissions per hour.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 13B of 40 CFR Part 60, Appendix A.

**1.q** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 1.6 lbs of fluoride emissions per ton of glass pulled.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 13B of 40 CFR Part 60 Appendix A.

**1.r** Emissions Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 47 tons of fluoride per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly fluoride emission limitation (11 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.s** Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

**1.t** Emission Limitation:

sulfur content of the fuel of less than or equal to 0.5 percent

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping specified in section A.III.2.

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

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 6 months after issuance of this permit and within 3 months prior to permit expiration.
  - b. The emission testing shall be conducted for all the equipment comprising this emissions unit to demonstrate compliance with the allowable mass emission rates for particulates, CO, NOx, SO2, fluorides, and VOC.
  - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for CO Method 10 of 40 CFR Part 60 Appendix A; for NOx, Method 7E of 40 CFR Part 60 Appendix A; for particulates, Method 5 of 40 CFR Part 60, Appendix A; for SO2, Method 6C of 40 CFR Part 60, Appendix A; for fluorides, Method 13B of 40 CFR Part 60, Appendix A; and for VOC, Method 25 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. Since P001 and P013 use the same raw materials and share common control equipment, one emission test will be used to determine compliance for both emissions units. The test shall be conducted while both emissions units are operating at or near their maximum capacities. The permittee shall monitor the glass pull rate and natural gas usage of each glass furnace during the stack test and proportionally "split" the resultant pollutant emission rates determined during the stack testing, based upon the relative pull rate of each furnace.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TDOES. 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 TDOES's refusal to accept the results of the emission test(s).

Personnel from the TDOES 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 TDOES 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 TDOES.

## **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>
<p>glass melting furnace, oven 9211, natural gas and oxygen-fired</p> <p>Particulate emissions from the furnace are controlled by a fabric filter and fluoride emissions are controlled by a spray tower with a 50% caustic solution (NaOH).</p> <p>Forehearth emissions are uncontrolled and have been included in the emission limitations.</p> <p>Forming room emissions are uncontrolled and have been included in the emission limitations.</p>		

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (P001) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: methanol

TLV (mg/m3): 262

Maximum Hourly Emission Rate (lbs/hr): 1.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 547.1

MAGLC (ug/m3): 6238

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
  - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":
  - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

Facility Name: **Johns Manville International, Inc. / Plant #01 - Wtvl.**  
Facility ID: **04-48-00-0012**  
Emissions Unit: **Direct Melt Fiberglass Furnace 9211 (P001)**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

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

**Emissions Unit ID:** Direct Melt Fiberglass Furnace 9212 (P013)

**Activity Description:** Fiber glass Direct Melt Furnace 9212

#### 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>
Glass melting furnace, oven 9212, natural gas and oxygen-fired	OAC rule 3745-31-05(A)(3) (PTI 04-975)	8.2 lbs/hr of particulate emissions; 36 tpy of particulate emissions as a rolling, 12-month summation; and 1.3 lbs of particulate emissions per ton of glass pulled from all of the equipment comprising this emissions unit
Particulate emissions from the furnace are controlled by a fabric filter and fluoride emissions are controlled by a spray tower with a 50% caustic solution (NaOH).		18 lbs/hr of sulfur dioxide (SO <sub>2</sub> ); 77 tpy of SO <sub>2</sub> as a rolling, 12-month summation; and 2.8 lbs of SO <sub>2</sub> per ton of glass pulled from all of the equipment comprising this emissions unit
Forehearth emissions are uncontrolled and have been included in the emission limitations.		22 lbs/hr of nitrogen oxides (NO <sub>x</sub> ); 98 tpy of NO <sub>x</sub> as a rolling, 12-month summation; and 3.6 lbs of NO <sub>x</sub> per ton of glass pulled from all of the equipment comprising this emissions unit
Forming room emissions are uncontrolled and have been included in the emission limitations.		2.1 lbs/hr of carbon monoxide (CO); 9.3 tpy of CO as a rolling, 12-month summation; and 0.34 lb of CO per ton of glass pulled from all of the equipment comprising this emissions unit
		9.7 lbs/hr of volatile organic compounds (VOC); 43 tpy of VOC as a rolling, 12-month summation; and 1.5 lbs of VOC per ton of glass pulled from all of the equipment comprising this emissions unit

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
		9.8 lbs/hr of fluorides; 43 tpy of fluorides as a rolling, 12-month summation; and 1.6 lbs of fluorides per ton of glass pulled from all of the equipment comprising this emissions unit
		1.5 lbs/hr of methanol; 6.6 tpy of methanol as a rolling, 12-month summation; and 0.15 lb of methanol per ton of glass pulled from all of the equipment comprising this emissions unit
		See sections A.1.2.a, A.1.2.b, and A.1.2.c.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	See section A.1.2.d.
	OAC rule 3745-18-06(E)	See section A.1.2.d.
	OAC rule 3745-21-08(B)	See section A.1.2.f.
	OAC rule 3745-23-06(B)	See section A.1.2.f.

## 2. Additional Terms and Conditions

- 2.a** The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).
- 2.b** The permittee shall only employ fuel in this emissions unit with a sulfur content that is less than or equal to 0.5 percent sulfur.
- 2.c** The hourly methanol emission limitation was established by modeling and is greater than the potential to emit for this emissions unit; therefore, no monitoring, record keeping, reporting, or testing terms and conditions are necessary for this limitation.
- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.e** The NaOH solution employed in the spray tower shall be a minimum of 50% NaOH by volume.
- 2.f** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-975.

## II. Operational Restrictions

1. The maximum operating rate for this emissions unit shall not exceed 166 tons of glass pulled per day.
2. The permittee shall burn only natural gas as fuel in this emissions unit.
3. The permittee shall operate the baghouse and caustic spray tower whenever this emissions unit is in operation.
4. The pressure drop across the baghouse shall be maintained within the range of 2.5 to 3.5 inches of water column while the emissions unit is in operation.
5. The flow rate of NaOH (50% by volume) to the spray tower shall be greater than 16.7 gallons per hour.
6. The water flow rate to the spray tower shall be greater than 300 gallons per hour.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain daily records of the glass pulled in this emissions unit, in tons.
2. 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.
3. The permittee shall maintain daily records of the volume of natural gas burned in the forehearth, in millions of standard cubic feet.
4. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

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

- a. the pressure drop across the baghouse, in inches of water, on an hourly basis; and
  - b. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
5. The permittee shall properly operate and maintain equipment to continuously monitor the NaOH flow rate and the water flow rate to the spray tower 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 gallons of the NaOH solution pumped to the spray tower;
- b. the flow rate of water to the spray tower, in gallons per hour;
- c. the total hours of operation of this emissions unit and the spray tower;
- d. the average flow rate of NaOH to the spray tower, in gallons per hour, i.e., (a)/(c); and
- e. the % of NaOH, by volume, in the NaOH solution pumped to the spray tower.

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

6. 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 stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.
2. The permittee shall submit quarterly deviation (excursion) reports that identify each day when the maximum glass pull rate limitation was exceeded in this emissions unit.
3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following spray tower parameters were not maintained at or above the required levels:
  - a. the water flow rate to the spray tower;
  - b. the NaOH flow rate to the spray tower; and
  - c. the % NaOH, by volume, in the NaOH solution employed.
5. The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.
6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

### V. Testing Requirements

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

**V. Testing Requirements (continued)**

**1.a** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 8.2 lbs of particulate emissions per hour.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10).

**1.b** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 1.3 lbs of particulate emissions per ton of glass pulled.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10).

**1.c** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 36 tons of particulate emissions per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly particulate emission limitation (8.2 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.d** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 2.1 lbs of CO per hour.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 10 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the CO emissions.)

**1.e** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 0.34 lb of CO per ton of glass pulled.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 10 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the CO emissions.)

**V. Testing Requirements (continued)**

**1.f** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 9.3 tons of CO per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly CO emission limitation (2.1 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.g** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 22 lbs/hr of NOx.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 7 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the NOx emissions.)

**1.h** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 3.6 lbs of NOx per ton of glass pulled.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 7 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the NOx emissions.)

**1.i** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 98 tons of NOx per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly NOx emission limitation (22 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.j** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 18 lbs/hr of SO2.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 6 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the SO2 emissions.)

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

### **1.k Emission Limitation:**

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 2.8 lbs of SO<sub>2</sub> per ton of glass pulled.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 6 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the SO<sub>2</sub> emissions.)

### **1.l Emission Limitation:**

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 77 tons of SO<sub>2</sub> per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly SO<sub>2</sub> emission limitation (18 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

### **1.m Emission Limitations:**

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 9.7 lbs/hr of VOC.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 25 of 40 CFR Part 60, Appendix A.

### **1.n Emission Limitation:**

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 1.5 lbs of VOC per ton of glass pulled.

Applicable Compliance Methods:

If required, compliance shall be demonstrated based upon emission testing performed in accordance with the methods and procedures of Method 25 of 40 CFR Part 60 Appendix A.

### **1.o Emission Limitation:**

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 43 tons of VOC per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly VOC emission limitation (9.7 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**V. Testing Requirements (continued)**

**1.p** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 9.8 lbs of fluoride emissions per hour.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 13B of 40 CFR Part 60, Appendix A.

**1.q** Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 1.6 lbs of fluoride emissions per ton of glass pulled.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 13B of 40 CFR Part 60 Appendix A.

**1.r** Emissions Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 43 tons of fluoride per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly fluoride emission limitation (9.8 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.s** Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

**1.t** Emission Limitation:

sulfur content of the fuel of less than or equal to 0.5 percent

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping specified in section A.III.2.

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

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 6 months after issuance of this permit and within 3 months prior to permit expiration.
  - b. The emission testing shall be conducted for all the equipment comprising this emissions unit to demonstrate compliance with the allowable mass emission rates for particulates, CO, NOx, SO2, fluorides, and VOC.
  - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for CO Method 10 of 40 CFR Part 60 Appendix A; for NOx, Method 7E of 40 CFR Part 60 Appendix A; for particulates, Method 5 of 40 CFR Part 60, Appendix A; for SO2, Method 6C of 40 CFR Part 60, Appendix A; for fluorides, Method 13B of 40 CFR Part 60, Appendix A; and for VOC, Method 25 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. Since P001 and P013 use the same raw materials and share common control equipment, one emission test will be used to determine compliance for both emissions units. The test shall be conducted while both emissions units are operating at or near their maximum capacities. The permittee shall monitor the glass pull rate and natural gas usage of each glass furnace during the stack test and proportionally "split" the resultant pollutant emission rates determined during the stack testing, based upon the relative pull rate of each furnace.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TDOES. 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 TDOES's refusal to accept the results of the emission test(s).

Personnel from the TDOES 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 TDOES 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 TDOES.

## **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>
<p>glass melting furnace, oven 9211, natural gas and oxygen-fired</p> <p>Particulate emissions from the furnace are controlled by a fabric filter and fluoride emissions are controlled by a spray tower with a 50% caustic solution (NaOH).</p> <p>Forehearth emissions are uncontrolled and have been included in the emission limitations.</p> <p>Forming room emissions are uncontrolled and have been included in the emission limitations.</p>		

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (P001) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: methanol

TLV (mg/m3): 262

Maximum Hourly Emission Rate (lbs/hr): 1.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 821

MAGLC (ug/m3): 6238

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
  - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":
  - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

Facility Name: **Johns Manville International, Inc. / Plant #01 - Wtvl.**

Facility ID: **04-48-00-0012**

Emissions Unit: **Direct Melt Fiberglass Furnace 9212 (P013)**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

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

**Emissions Unit ID:** Wet process fiber glass mat oven (P015)  
**Activity Description:** Fiber blend mat line - produces bonded non-woven fibrous mat.

#### 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>
Wet fiberglass mat line (comprised of the wet mat conveyor, mat oven dryer, and edgetrim bailer) controlled with a catalytic thermal oxidizer (RCO) and a baghouse. The mat line oven exhaust must be vented to the RCO. The edgetrim bailer exhaust must be vented to the baghouse.	OAC rule 3745-31-05(A)(3) (PTI 04-306)	2.35 lbs/hr of particulate emissions  10.29 tpy of particulate emissions  See section A.I.2.c.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	See section A.I.2.a.
	OAC rule 3745-18-06(E)	496.8 lbs/hr of sulfur dioxide (SO2)  See section A.I.2.f.
	OAC rule 3745-21-07(G)(3)	85% overall control efficiency of organic compounds (OC)
	OAC rule 3745-21-07(G)(6)	See section A.I.2.b.
	OAC rule 3745-21-08(B)	See section A.I.2.g.
	OAC rule 3745-23-06(B)	See section A.I.2.g.
	40 CFR Part 63, Subpart HHHH	See sections A.I.2.d and A.I.2.e.

##### 2. Additional Terms and Conditions

- 2.a The emission limitation established pursuant to this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.b The permittee shall maintain the OC destruction efficiency of the RCO at 90% or greater whenever this emissions unit is in operation.
- 2.c The requirements of this rule include compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-18-06(E), 3745-21-07(G)(3) and G(6), 3745-21-08(B), and 3745-23-06(B).

## 2. Additional Terms and Conditions (continued)

- 2.d** [40 CFR 63.2985]  
The permittee shall comply with the requirements of the emission limitations and work practice standards for existing sources in 40 CFR Part 63, Subpart HHHH by no later than April 11, 2005. The requirements of 40 CFR Part 63, Subpart HHHH are identified at the beginning of each applicable term and condition with a Part 63 reference in brackets.
- 2.e** [40 CFR 63.2983]  
The permittee shall reduce uncontrolled formaldehyde emissions from the mat oven by at least 96%.
- 2.f** The actual SO<sub>2</sub> emissions are the result of the combustion of natural gas, and are negligible.
- 2.g** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-306.

## II. Operational Restrictions

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

NOTE: This term and condition shall be applicable until 40 CFR Part 63, Subpart HHHH becomes effective on April 11, 2005. On that date, the permittee shall comply with section A.II.5.

3. The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water while the emissions unit is in operation.
4. [40 CFR 63.2984(a)]  
The permittee shall maintain operating parameters within the established limits or ranges specified in the operation, maintenance, and monitoring (OMM) plan as described in 40 CFR 63.2987. If there is a deviation of any of the specified parameters from the limit or range specified in the OMM plan, the permittee shall address the deviation according to section A.II.9. The permittee shall comply with the operating limits specified in sections A.II.5 through A.II.11.
5. [40 CFR 63.2984(a)(1)]  
The permittee shall operate the catalytic thermal oxidizer so that the average operating temperature in any 3-hour block period does not fall below the temperature established during the performance test and specified in the OMM plan.
6. [40 CFR 63.2984(a)(2)]  
The permittee shall not use a resin with a free-formaldehyde content greater than that of the resin used during the most recent performance test that demonstrated compliance and as specified in the OMM plan.
7. [40 CFR 63.2984(a)(3)]  
The permittee shall operate the wet-formed fiberglass mat production process so that the average urea formaldehyde resin solids application rate in any 3-hour block period does not exceed the average application rate achieved during the most recent performance test that demonstrated compliance and as specified in the OMM plan.

## II. Operational Restrictions (continued)

8. [40 CFR 63.2984(a)(4)]  
If the permittee uses an add-on control device other than a thermal oxidizer or wish to monitor an alternative parameter and comply with a different operating limit, the permittee shall obtain approval for the alternative monitoring under 40 CFR 63.8(f). The permittee shall include the approved alternative monitoring and operating limits in the OMM plan as specified in 40 CFR 63.2987.
9. [40 CFR 63.2984(b)]  
When during a period of normal operations the permittee detects that an operating parameter deviates from the limit or range established in section A.II.4, the permittee shall initiate corrective actions within 1 hour according to the provisions of the OMM plan. During periods of start up, shut down, or malfunction the permittee shall follow the startup, shutdown, and malfunction plan (SSMP). The corrective action actions shall be completed in an expeditious manner as specified in the OMM plan or SSMP.
10. [40 CFR 63.2984(d)]  
The permittee shall include the operating limits or ranges specified in sections A.II.5 through A.II.8 in the OMM plan. The permittee shall develop an OMM plan and operate according to the OMM plan at all times.
11. [40 CFR 63.2984(e)]  
If the permittee uses a thermal oxidizer or other control device to achieve the emission limits in 40 CFR 63.2983, the permittee shall capture and convey the formaldehyde emissions from each drying and curing oven according to the procedures in chapters 3 and 5 of "Industrial Ventilation: A Manual of Recommended Practice" (23rd Edition). This publication is incorporated by reference in 40 CFR 63.3003.
12. [40 CFR 63.2986(b)]  
The permittee shall comply with the limits specified in 40 CFR 63.2984. The operating limits in 40 CFR 63.2984 prescribe the requirements for demonstrating continuous compliance based on the OMM plan. The permittee shall begin complying with the operating limits on the date by which the permittee must complete the initial performance test.
13. [40 CFR 63.2986(e)]  
The permittee shall prepare and follow a written OMM plan as specified in section A.III.18 (40 CFR 63.2987).
14. [40 CFR 63.2986(g)]  
The permittee shall comply with the requirements specified below.
  - a. The permittee shall be in compliance with the emission limit in section A.I.2.e (40 CFR 63.2983) and the operating limits in sections A.II.4 through A.II.11 (40 CFR 63.2984) at all times, except during periods of startup, shutdown, or malfunction.
  - b. The permittee shall always operate and maintain this emissions unit, including air pollution control and monitoring equipment, according to the provisions in 40 CFR 63.6(e)(1).
  - c. The permittee shall develop and implement a written SSMP according to the provisions in 40 CFR 63.6(e)(3). The SSMP must address the startup, shutdown, and corrective actions taken for malfunctioning process and air pollution control equipment.

## III. Monitoring and/or Record Keeping Requirements

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

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

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

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

- a. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was less than 800 degrees Fahrenheit;
  - b. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance; and
  - c. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
3. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse every 4 hours.
  4. 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 location and color of the emissions;
    - b. whether the emissions are representative of normal operations;
    - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
    - d. the total duration of any visible emission incident; and
    - e. any corrective actions taken to eliminate the visible emissions.
  5. [40 CFR 63.2996]  
The permittee shall monitor the urea-formaldehyde resin solids application rate. On each day of operation, the permittee shall calculate and record the average lb/hr application rate for each product manufactured during that day.
  6. [40 CFR 63.2996]  
The permittee shall monitor the resin free-formaldehyde content for each lot of resin purchased. The permittee shall measure (in accordance with 40 CFR Part 63, Subpart HHHH, Appendix A) and record the value for each lot used during the operating day.
  7. [40 CFR 63.2996]  
The permittee shall monitor the loss-on-ignition (as defined in 40 CFR 63.3004). The permittee shall measure (in accordance with 40 CFR Part 63, Subpart HHHH, Appendix B) and record the loss-on-ignition at least once per day, for each product manufactured during that day.
  8. [40 CFR 63.2996]  
The permittee shall monitor the UF-to-latex ratio in the binder. The permittee shall measure and record, for each batch of binder prepared during the operating day, the value of the UF-to-latex ratio.
  9. [40 CFR 63.2996]  
The permittee shall monitor the weight of the final mat produced per square (lb/roofing square). The permittee shall measure and record this parameter for each product manufactured during the operating day.

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

10. [40 CFR 63.2996]  
The permittee shall monitor the average nonwoven wet-formed fiberglass mat production rate (roofing squares per the hour). The average value for each product shall be recorded for each product manufactured during the operating day.
11. [40 CFR 63.2996]  
The permittee shall monitor any other parameters, in addition to sections A.III.5 through A.III.10, that are specified in the OMM plan.
12. [40 CFR 63.2984(c)]  
The permittee shall maintain and inspect control devices according to the procedures specified in the OMM plan.
13. [40 CFR 63.2998]  
The permittee shall maintain records according to the procedures specified in 40 CFR 63.10.

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

- a. All records required by 40 CFR 63.10. Table 2 of 40 CFR Part 63, Subpart HHHH presents the applicable requirements of the general provisions.
  - b. The OMM plan.
  - c. Records of values of monitored parameters listed in table 1 of 40 CFR Part 63, Subpart HHHH to show continuous compliance with each operating limit specified in table 1 of 40 CFR Part 63, Subpart HHHH.
  - d. Records of maintenance and inspections performed on the control devices.
  - e. If an operating parameter deviation occurs, the permittee shall record the following information:
    - i. the date, time, and duration of the operating parameter deviation;
    - ii. a brief description of the cause of the operating parameter deviation;
    - iii. the dates and times at which corrective actions were initiated and completed;
    - iv. a brief description of the corrective actions taken to return the parameter to the limit or to within the range specified in the OMM plan; and
    - v. a record of whether the deviation occurred during a period of startup, shutdown, or malfunction.
  - f. The permittee shall maintain all of the records specified in 40 CFR 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
  - g. If you operate your process or control device under alternative operating condition and have established operating limits for each condition as specified in 40 CFR 63.2989(c), then you must keep records of the date and time you changed operations from one condition to another, the condition under which you are operating, and the applicable operating limits for that condition.
14. [40 CFR 63.2999]
    - a. The permittee shall maintain each record required by this permit and 40 CFR Part 63, Subpart HHHH for 5 years. The permittee shall maintain the most recent 2 years of records at the facility. The remaining 3 years of records may be retained offsite.
    - b. The permittee shall maintain records in a readily available format that can be easily inspected and reviewed. The permittee may keep the records on paper or an alternative media, such as microfilm, computer, computer disks, magnetic tape, or on microfiche.

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

15. [40 CFR 63.2986(a)]  
The permittee shall maintain and operate a thermal oxidizer or other control device or implement a process modification that reduces formaldehyde emissions from each drying and curing oven to the emission limits specified in section A.I.2.e (40 CFR 63.2983).
16. [40 CFR 63.2986(d)]  
The permittee shall install, calibrate, maintain, and operate devices that monitor the parameters specified in the OMM plan at the frequency specified in the plan. All continuous parameter monitoring systems must be installed and operating no later than the applicable compliance date specified in section A.I.2.d (40 CFR 63.2985).
17. [40 CFR 63.2986(f)]  
The permittee shall comply with the monitoring, record keeping, notification, and reporting requirements of 40 CFR Part 63, Subpart HHHH as specified in sections A.III and A.IV and as required by 40 CFR 63.2996 through 63.3000.
18. [40 CFR 63.2987(a)]
  - a. The permittee shall, in the OMM, prescribe the monitoring that will be performed to ensure compliance with the emission limitations. Minimum monitoring requirements are listed in table 1 of 40 CFR Part 63, Subpart HHHH. The OMM plan must specify the items listed below:
    - i. Each process and control device to be monitored, the type of monitoring device that will be used, and the operating parameters that will be monitored.
    - ii. A monitoring schedule that specifies the frequency that the parameter values will be determined and recorded.
    - iii. The operating limits or ranges for each parameter that represent continuous compliance with the emission limit in section A.I.2.e (40 CFR 63.2983). Operating limits and ranges must be based on values of the monitored parameters recorded during performance tests.

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

[40 CFR 63.2987(b)]

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

- i. Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation. Clean pilot sensor if necessary.
- ii. Ensure proper adjustment of combustion air and adjust if necessary.
- iii. Inspect, when possible, all internal structures (such as baffles) to ensure structural integrity per the design specifications.
- iv. Inspect dampers, fans, and blowers for proper operation.
- v. Inspect motors for proper operation.
- vi. Inspect, when possible, combustion chamber refractory lining. Clean and repair or replace lining if necessary.
- vii. Inspect the thermal oxidizer shell for proper sealing, corrosion, and hot spots.
- viii. For the burn cycle that follows the inspection, document that the thermal oxidizer is operating properly and make any necessary adjustments.
- ix. Generally observe whether the equipment is maintained in good operating condition.
- x. Complete all necessary repairs as soon as practicable.

[40 CFR 63.2987(c)]

c. The permittee shall establish procedures for responding to operating parameter deviations. At a minimum, the procedures must include the information specified below:

- i. Procedures for determining the cause of the operating parameter deviation.
- ii. Actions for correcting the deviation and returning the operating parameters to the allowable ranges or limits.
- iii. Procedures for recording the date and time that the deviation began and ended, and the times corrective actions were initiated and completed.

[40 CFR 63.2987(d)]

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

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

**19.** [40 CFR 63.2989a]

Changes to the operating limits or ranges in the OMM plan require a new performance test.

a. In order to revise the ranges or levels established for the operating limits specified in sections A.II.4 through A.II.11 (40 CFR 63.2984), the permittee shall meet the following:

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

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

[40 CFR 63.2989b]

b. If the permittee is only revising the inspection and maintenance procedures in the OMM plan that are specified in section A.III.18.b (40 CFR 63.2987(b)), there is no need to conduct a new performance test.

[40 CFR 63.2989c]

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

**20.** [40 CFR 63.2994(a)]

a. Before conducting the performance test, the permittee shall take the steps listed in sections A.III.20.a.i and A.III.20.a.ii:

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

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

[40 CFR 63.2994(b)]

b. If this emissions unit is controlled by use of a thermal oxidizer, the temperature monitoring device must meet the performance and equipment specifications listed in sections A.III.20.b.i through A.III.20.b.iii:

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

ii. The recorder response range must include zero and 1.5 times the average temperature required in section A.II.5 (40 CFR 63.2984(a)(1)).

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

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

21. [40 CFR 63.2997(a)]
- a. If formaldehyde emissions are controlled using a thermal oxidizer, the permittee shall meet the requirements in sections A.III.21.a.i and A.III.21.a.ii.
    - i. Install, calibrate, maintain, and operate a device to monitor and record continuously the thermal oxidizer temperature at the exit of the combustion zone before any substantial heat exchange occurs or at the location consistent with the manufacturer's recommendations.
    - ii. Continuously monitor the thermal oxidizer temperature and determine and record the average temperature in 15-minute and 3-hour block averages. The permittee may determine the average temperature more frequently than every 15 minutes and every 3 hours, but not less frequently.
- [40 CFR 63.2997(b)]
- b. If formaldehyde emissions are controlled by process modifications or a control device other than a thermal oxidizer, the permittee shall install, calibrate, maintain, and operate devices to monitor the parameters established in the OMM plan at the frequency established in the plan.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.
2. The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time when the emissions unit was in operation during which the average temperature of the exhaust gases immediately before the catalyst bed or the average temperature difference across the catalyst bed did not comply with the temperature limitations specified above.
3. The permittee shall submit quarterly 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.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.
5. [40 CFR 63.3000]  
The permittee shall submit all notifications and reports required by the applicable general provisions and this section. Table 2 of 40 CFR Part 63, Subpart HHHH presents the applicable requirements of the general provisions.
6. [40 CFR 63.3000]  
The permittee shall submit the notification of compliance status, including the performance test results, the operating limits or ranges as determined during the performance test, and other information specified in 40 CFR 63.9(h), before the close of business on the 60th calendar day after completing the performance test according to 40 CFR 63.10(d)(2).

#### IV. Reporting Requirements (continued)

7. [40 CFR 63.3000]

The permittee shall submit semiannual compliance reports according to the requirements of sections A.IV.7.a through A.IV.7.e.

a. Unless the Administrator has agreed to a different schedule for submitting reports under 40 CFR 63.10(a), the permittee shall deliver or postmark each semiannual compliance report no later than 30 days following the end of each semiannual reporting period. The first semiannual reporting period begins on the compliance date for the affected source and ends on June 30 or December 31, whichever date immediately follows the compliance date. Each subsequent semiannual reporting period for which the permittee shall submit a semiannual compliance report begins on July 1 or January 1 and ends 6 calendar months later. As required by 40 CFR 63.10(e)(3), the permittee shall begin submitting quarterly compliance reports if the permittee deviates from the emission limit in section A.I.2.e (40 CFR 63.2983) or the operating limits in sections A.II.5 through A.II.11 (40 CFR 63.2984).

b. For each affected source that is subject to permitting regulations pursuant to 40 CFR Part 70 or 71, and for which the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), the permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in section A.IV.7.a.

c. The semiannual compliance report must contain the information in sections A.IV.7.c.i through A.IV.7.c.vi:

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

d. If there were no deviations from the emission limit in section A.I.2.e (40 CFR 63.2983) or the operating limits in sections A.II.5 through A.II.11 (40 CFR 63.2984), the semiannual compliance report must include a statement to that effect. If there were no periods during which the continuous parameter monitoring systems were out-of-control as specified in 40 CFR 63.8(c)(7), the semiannual compliance report must include a statement to that effect.

#### IV. Reporting Requirements (continued)

e. If there was a deviation from the emission limit in section A.I.2.e (40 CFR 63.2983) or an operating limit in sections A.II.5 through A.II.11 (40 CFR 63.2984), the semiannual compliance report must contain the information specified in sections A.IV.7.e.i through A.IV.7.e.ix:

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

**8.** [40 CFR 63.3000]

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

**9.** [40 CFR 63.3000]

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

**10.** [40 CFR 63.2990]

With the approval of the Administrator, the permittee may conduct short-term experimental production runs during which this emissions unit's operating parameters deviate from the operating limits. Experimental runs may include, but are not limited to, runs using resin with a higher free-formaldehyde content than specified in the OMM plan, or using experimental pollution prevention techniques. To conduct a short-term experimental production run, the permittee shall complete the requirements specified in sections A.IV.10.a and A.IV.10.b.

[40 CFR 63.2990a]

a. Prepare an application to the Administrator for approval to conduct the experimental production runs. This application must include the items listed in sections A.IV.10.a.i through A.IV.10.a.vi:

- i. the purpose of the experimental production run;
- ii. identification of the affected line;
- iii. an explanation of how the operating parameters will deviate from the previously approved ranges and limits;
- iv. the duration of the experimental production run;
- v. the date and time of the experimental production run; and
- vi. a description of any emission testing to be performed during the experimental production run.

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

[40 CFR 63.2990b]

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

[40 CFR 63.2990c]

c. If the permittee conducts such experimental production runs without first receiving approval from the Administrator, then the permittee shall conduct a performance test under those same experimental production run conditions to show that the permittee was in compliance with the formaldehyde emission limit in section A.1.2.e (40 CFR 63.2983).

#### **V. Testing Requirements**

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

**1.a** Emission Limitation:

2.35 lbs/hr of particulate emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.2.

**1.b** Emission Limitation:

10.29 tpy of particulate emissions

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable particulate emission limitation (2.35 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.c** Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

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

**1.d** Emission Limitation:

overall control efficiency for OC emissions of at least 85%

OC destruction efficiency of at least 90%

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.3.

## V. Testing Requirements (continued)

**1.e** Emission Limitation:

496.8 lbs/hr of SO<sub>2</sub>

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

**1.f** Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in sections A.V.2 and A.V.5 through A.V.8.

**2.** [40 CFR 63.2991]

The permittee shall conduct or have conducted a performance test for each drying and curing oven subject to 40 CFR Part 63, Subpart HHHH according to the provisions in sections A.V.2.a through A.V.2.c:

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

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

c. The permittee shall conduct, or have conducted, a performance test according to the requirements specified in section A.V.6 (40 CFR 63.2992) to change the limit or range for any operating limit specified in the OMM plan established during a previous compliance test.

**3.** 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 expiration.

b. The emission testing shall be conducted for all equipment comprising this emissions unit to demonstrate compliance with the allowable mass emission rate for particulates, the 85% overall control efficiency, and the 90% destruction efficiency for the incinerator.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for VOC, Method 25 or 25A of 40 CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the overall control efficiency limitation for VOC are specified below. 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.

## V. Testing Requirements (continued)

e. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

4. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TDOES. 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 TDOES's refusal to accept the results of the emission test(s).

Personnel from the TDOES 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 TDOES 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 TDOES.

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

**V. Testing Requirements (continued)**

**6.** [40 CFR 63.2992]

- a. The permittee shall verify the performance of monitoring equipment as specified in section A.III.20 (40 CFR 63.2994) before performing the test.
- b. The permittee shall conduct the performance test according to the procedures in 40 CFR 63.7.
- c. The permittee shall conduct the performance test under the following conditions:
  - i. The resin must have the highest specified free-formaldehyde content that will be used.
  - ii. The permittee shall operate at the maximum feasible urea-formaldehyde resin solids application rate (pounds urea-formaldehyde resin solids applied per hour) that will be used.
- d. During the performance test, the permittee shall monitor and record the operating parameters that will be used to demonstrate continuous compliance after the test. These parameters are listed in table 1 of 40 CFR Part 63, Subpart HHHH.
- e. The permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction as specified in 40 CFR 63.7(e)(1).
- f. The permittee shall conduct three separate test runs for each performance test as specified in 40 CFR 63.7(e)(3), and each test run shall last at least 1 hour.

**7.** [40 CFR 63.2993]

The permittee shall:

- a. use EPA Method 1 (40 CFR Part 60, Appendix A) for selecting the sampling port location and the number of sampling ports;
- b. use EPA Method 2 (40 CFR Part 60, Appendix A) for measuring the volumetric flow rate;
- c. use EPA Method 316 or 318 (40 CFR Part 63, Appendix A) for measuring the concentration of formaldehyde;
- d. use the method contained in Appendix A of 40 CFR Part 63, Subpart HHHH or the resin purchase specification and the vendor specification sheet for each resin lot for determining the free-formaldehyde content in the urea-formaldehyde resin; and
- e. use the method in Appendix B of 40 CFR Part 63, Subpart HHHH for determining product loss-on-ignition.

**8.** [40 CFR 63.2995a]

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

$$E_f = [(M_i - M_o)/M_i] * 100 \quad (\text{Eq.1})$$

where:

$E_f$  = formaldehyde control efficiency, in percent;

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

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

## V. Testing Requirements (continued)

[40 CFR 63.2995b]

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

$$E = M/P \quad (\text{Eq.2})$$

where:

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

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

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

[40 CFR 63.2995c]

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

$$(\text{UF Solids})/\text{Hour} = \text{LOI} * \text{UFL} * \text{MW} * \text{SQ} \quad (\text{Eq.3})$$

where:

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

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

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

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

SQ = roofing squares produced per hour.

## VI. Miscellaneous Requirements

1. [40 CFR 63.2984(d)]  
The permittee shall develop an OMM plan according to 40 CFR 63.2987 and operate this emissions unit at all times according to this plan.
2. [40 CFR 63.2986(g)]  
The permittee shall develop and implement a written SSMP according to the provisions in 40 CFR 63.6(e)(3). The SSMP must address the startup, shutdown, and corrective actions taken for malfunctioning process and air pollution control equipment.
3. [40 CFR 63.3001]  
The permittee shall comply with the requirements of the general provisions of 40 CFR Part 63, Subpart A, as specified in table 2 of 40 CFR Part 63, Subpart HHHH.

**B. State Enforceable Section**

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

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

<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:** Recycling Area Dryer (P017)

**Activity Description:** 5.8 MMBtu/hr dryer used in recycling area for direct melt furnace 9212, (Installation/startup dates estimated)

#### 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>
Enclosed precrusher, hammer mill and fluid bed dryer for scrap fiberglass recycling for direct melt furnace 9212, with exhaust gas from dryer vented and controlled by a baghouse.	OAC rule 3745-31-05(A)(3) (PTI 04-360)	1.46 lbs/hr of particulate emissions
		6.40 tpy of particulate emissions
		See section A.I.2.a.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	See section A.I.2.b.
	OAC rule 3745-18-06(E)	293.0 lbs/hr of sulfur dioxide (SO <sub>2</sub> )
		See section A.I.2.d.
	OAC rule 3745-21-08(B)	See section A.I.2.c.
	OAC rule 3745-23-06(B)	See section A.I.2.c.

##### 2. Additional Terms and Conditions

- 2.a The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-18-06(E), 3745-21-08(B), and 3745-23-06(B).
- 2.b The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-360.
- 2.d The actual SO<sub>2</sub> emissions are the result of the combustion of natural gas, and are negligible.

## II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.
2. The pressure drop across the baghouse shall be maintained within the range of 4 to 6 inches of water while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the 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 daily basis.
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 stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

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

**1.a** Emission Limitation:

1.46 lbs/hr of particulate emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10).

**V. Testing Requirements (continued)**

**1.b** Emission Limitation:

6.40 tpy of particulate emissions

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable particulate emission limitation (1.46 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.c** Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

**1.d** Emission Limitation:

293.0 lbs/hr of SO<sub>2</sub>

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

**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:** 9212 Dryer Line 4 (P045)

**Activity Description:** Oven for Furnace 12 line 4

#### A. State and Federally Enforceable Section

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>	
Line 9212 wet chopped fiberglass dryer equipped with a wet scrubber (Monroe Dual Throat). Oven dryer exhausts are vented to the scrubber.	OAC rule 3745-31-05(A)(3) (PTI 04-1132)	1.7 lbs/hr of particulate emissions 7.5 tpy of particulate emissions	
		0.17 lb/hr of carbon monoxide (CO) 0.75 tpy of CO	
		0.2 lb/hr of nitrogen oxides (NOx) 0.9 tpy of NOx	
		0.01 lb/hr of sulfur dioxide (SO2) 0.04 tpy of SO2	
		0.012 lb/hr of volatile organic compounds (VOC) 0.05 tpy of VOC	
		See section A.1.2.c.	
		OAC rule 3745-17-07(A)(1)	See section A.1.2.a.
		OAC rule 3745-17-10(B)(1)	See section A.1.2.b.
		OAC rule 3745-18-06(E)	See section A.1.2.b.
		OAC rule 3745-21-08(B)	See section A.1.2.f.
OAC rule 3745-23-06(B)	See section A.1.2.f.		

##### 2. Additional Terms and Conditions

- 2.a** Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
- 2.b** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.c** The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

## **2. Additional Terms and Conditions (continued)**

- 2.d** The hourly and annual emission limitations for SO<sub>2</sub>, CO, VOC, and NO<sub>x</sub> were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.
- 2.e** The permittee shall employ the wet scrubber whenever this emissions unit is in operation.
- 2.f** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-1132.

## **II. Operational Restrictions**

- 1.** The permittee shall burn only natural gas as fuel in this emissions unit.
- 2.** The pressure drop across the scrubber shall be continuously maintained between 8 and 10 inches of water at all times while the emissions unit is in operation.

The scrubber water flow rate shall be continuously maintained at a value of not less than 60 gallons per minute at all times while the emissions unit is in operation.

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

- 1.** For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- 2.** The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the 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 during each 8-hour shift:

- a. the pressure drop across the scrubber, in inches of water, once per shift;
  - b. the scrubber water flow rate, in gallons per minute, once per shift; and
  - c. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
- 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 location and color of the emissions;
    - b. whether the emissions are representative of normal operations;
    - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
    - d. the total duration of any visible emission incident; and
    - e. any corrective actions taken to eliminate the visible emissions.

## **IV. Reporting Requirements**

- 1.** The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.

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

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were outside of the ranges specified in section A.III.2:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
3. The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

1.7 lbs/hr of particulate emissions

Applicable Compliance Method

If required, compliance shall be demonstrated based upon emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10).

**1.b** Emission Limitation:

7.5 tpy of particulate emissions

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable particulate emission limitation (1.7 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.c** Emission Limitation:

0.01 lb/hr of SO<sub>2</sub>

Applicable Compliance Method:

Compliance may be demonstrated by dividing the emission factor of 0.6 pound of SO<sub>2</sub> emissions per million standard cubic feet by a heating value of 1020 Btu per standard cubic foot, and then multiplying by the maximum heat input capacity of 2 mmBtu per hour. The SO<sub>2</sub> emission factor was obtained from USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 6 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-18-04.

**V. Testing Requirements (continued)**

**1.d** Emission Limitation:

0.04 tpy of SO<sub>2</sub>

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable SO<sub>2</sub> emission limitation (0.01 lb/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.e** Emission Limitation:

0.17 lb/hr of CO

Applicable Compliance Method:

Compliance may be demonstrated by dividing the emission factor of 84 pounds of CO emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot, and then multiplying the result by the maximum heat input capacity of 2 mmBtu per hour. The CO emission factor was obtained from USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 10 of 40 CFR Part 60 Appendix A.

**1.f** Emission Limitation:

0.75 tpy of CO

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable CO emission limitation (0.17 lb/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.g** Emission Limitation:

0.2 lb/hr of NO<sub>x</sub>

Applicable Compliance Method:

Compliance may be demonstrated by dividing the emission factor of 100 pounds of NO<sub>x</sub> emissions per million standard cubic feet by a heating value of 1020 Btu per standard cubic foot, and then multiplying by the maximum heat input capacity of 2 mmBtu per hour. The NO<sub>x</sub> emission factor was obtained from USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 7 of 40 CFR Part 60 Appendix A.

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

### **1.h** Emission Limitation:

0.9 tpy of NO<sub>x</sub>

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable NO<sub>x</sub> emission limitation (0.2 lb/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

### **1.i** Emission Limitation:

0.012 lb/hr of VOC

Applicable Compliance Method:

Compliance may be demonstrated by dividing the emission factor of 5.5 pounds of VOC emissions per million standard cubic feet by a heating value of 1020 Btu per standard cubic foot, and then multiplying by the maximum heat input capacity of 2 mmBtu per hour. The VOC emission factor was obtained from USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 25 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10.

### **1.j** Emission Limitation:

0.05 tpy of VOC

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable VOC emission limitation (0.012 lb/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

### **1.k** Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated based upon visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A using the methods and procedures specified in 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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