



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

8/1/2016

Sarah Harrison
Johns Manville - Waterville 07
6050 N. River Rd.
Waterville, OH 43566

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0448000013
Permit Number: P0120652
Permit Type: OAC Chapter 3745-31 Modification
County: Lucas

Certified Mail

No	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA)Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**
- **What should you do if you notice a spill or environmental emergency?**

How to appeal this permit

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

What should you do if you notice a spill or environmental emergency?

Any spill or environmental emergency which may endanger human health or the environment should be reported to the Emergency Response 24-HOUR EMERGENCY SPILL HOTLINE toll-free at (800) 282-9378. Report non-emergency complaints to the appropriate district office or local air agency.

If you have any questions regarding your permit, please contact Toledo Department of Environmental Services at (419)936-3015 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA
TDES; Michigan; Indiana; Canada



Response to Comments

Facility ID:	0448000013
Facility Name:	Johns Manville - Waterville 07
Facility Description:	
Facility Address:	7500 Dutch Road Waterville, OH 43566 Lucas County
Permit:	P0120652, Permit-To-Install - OAC Chapter 3745-31 Modification
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the Toledo Blade on 06/24/2016. The comment period ended on 07/24/2016.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

1. Topic: Emissions Testing (Comment from Johns Manville)

- a. Comment: Section, condition number and page number are included with a brief description of Johns Manville's comment.

1.f)(2)c – Added additional section with language explaining that the exhaust air from all emission units is comingled prior to entering the air pollution control equipment that controls these units. This section also explains that not all units will produce the same product at the same time which is why testing CO for product groups at the outlet of the air pollution control device is not achievable.

The emission units vent to a common plenum where emissions from all the units are comingled prior to being routed to the EMC control system and ultimately emitted to the atmosphere through the stacks. The emission units run different product groups and the same product group is never run on all emission units at the same time. Therefore, in order to determine the CO emission factor for an individual product group, the permittee shall conduct, or have conducted, emission testing at the outlet of the emission unit running the product group to be tested, and prior to comingling with emissions from all other units in the plenum.

1.f)(2)d – Added additional language stating that in order to test for CO at the exit of each emission unit (prior to exhaust comingling in the ductwork) that the U.S. EPA method for locating test ports the appropriate distance from flow disturbances may not be met in all cases.



Response to Comments
Johns Manville - Waterville 07
Permit Number: P0120652
Facility ID: 0448000013

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for CO, Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. Given the need to conduct emissions testing at the outlet of the emission units and prior to the common plenum, it is expected that port locations may need to be located closer to disturbances (bends, expansions, or contractions) than specified in U.S. EPA approved test methods. Proposed test methods and procedures, including port locations, will be included in the "Intent to Test" notification required under f)(2)f below.

- b. Response: The requested change is acceptable and has been made to the final permit.



FINAL

**Division of Air Pollution Control
Permit-to-Install
for
Johns Manville - Waterville 07**

Facility ID: 0448000013
Permit Number: P0120652
Permit Type: OAC Chapter 3745-31 Modification
Issued: 8/1/2016
Effective: 8/1/2016



Division of Air Pollution Control
Permit-to-Install
for
Johns Manville - Waterville 07

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Final Permit-to-Install
Johns Manville - Waterville 07
Permit Number: P0120652
Facility ID: 0448000013
Effective Date: 8/1/2016

Authorization

Facility ID: 0448000013
Facility Description:
Application Number(s): A0055718
Permit Number: P0120652
Permit Description: Chapter 31 modification of 50 glass microfiber production units to increase the average firing rate and glass production throughput for the units.
Permit Type: OAC Chapter 3745-31 Modification
Permit Fee: \$10,200.00
Issue Date: 8/1/2016
Effective Date: 8/1/2016

This document constitutes issuance to:

Johns Manville - Waterville 07
7500 Dutch Road
Waterville, OH 43566

of a Permit-to-Install for the emissions unit(s) identified on the following page.

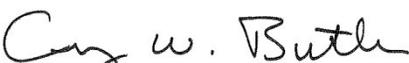
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604
(419)936-3015

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Craig W. Butler
Director



Authorization (continued)

Permit Number: P0120652

Permit Description: Chapter 31 modification of 50 glass microfiber production units to increase the average firing rate and glass production throughput for the units.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Group Name: P035-P085 Microstrand North Bank

Emissions Unit ID:	P035
Company Equipment ID:	Microstrand Source 1A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P036
Company Equipment ID:	Microstrand Source 1B
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P037
Company Equipment ID:	Microstrand Source 1C
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P038
Company Equipment ID:	Microstrand Source 1D
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P039
Company Equipment ID:	Microstrand Source 1E
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P040
Company Equipment ID:	Microstrand Source 1F
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P041
Company Equipment ID:	Microstrand Source 2A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P042
Company Equipment ID:	Microstrand Source 2B
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P043
Company Equipment ID:	Microstrand Source 2C
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P044
Company Equipment ID:	Microstrand Source 2D
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P045
Company Equipment ID:	Microstrand Source 2E

Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P046
Company Equipment ID:	Microstrand Source 2F
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P047
Company Equipment ID:	Microstrand Source 3A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P048
Company Equipment ID:	Microstrand Source 3B
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P049
Company Equipment ID:	Microstrand Source 3C
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P050
Company Equipment ID:	Microstrand Source 3D
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P051
Company Equipment ID:	Microstrand Source 3E
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P052
Company Equipment ID:	Microstrand Source 3F
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P053
Company Equipment ID:	Microstrand Source 4A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P054
Company Equipment ID:	Microstrand Source 4B
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P055
Company Equipment ID:	Microstrand Source 4C
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P056
Company Equipment ID:	Microstrand Source 5A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P057
Company Equipment ID:	Microstrand Source 5B
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P058
Company Equipment ID:	Microstrand Source 5C
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P059
Company Equipment ID:	Microstrand Source 6A



Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P060
Company Equipment ID:	Microstrand Source 6B
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P061
Company Equipment ID:	Microstrand Source 6C
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P062
Company Equipment ID:	Microstrand Source 7A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P063
Company Equipment ID:	Microstrand Source 7B
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P064
Company Equipment ID:	Microstrand Source 7C
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P065
Company Equipment ID:	Microstrand Source 8A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P066
Company Equipment ID:	Microstrand Source 8B
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P067
Company Equipment ID:	Microstrand Source 8C
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P068
Company Equipment ID:	Microstrand Source 9A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P069
Company Equipment ID:	Microstrand Source 9B
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P070
Company Equipment ID:	Microstrand Source 9C
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P071
Company Equipment ID:	Microstrand Source 10A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P072
Company Equipment ID:	Microstrand Source 10B
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P073
Company Equipment ID:	Microstrand Source 10C



Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P074
Company Equipment ID:	Microstrand Source 11A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P075
Company Equipment ID:	Microstrand Source 11B
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P076
Company Equipment ID:	Microstrand Source 11C
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P077
Company Equipment ID:	Microstrand Source 12A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P078
Company Equipment ID:	Microstrand Source 12B
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P079
Company Equipment ID:	Microstrand Source 12C
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P080
Company Equipment ID:	Microstrand Source 13A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P081
Company Equipment ID:	Microstrand Source 13B
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P082
Company Equipment ID:	Microstrand Source 13C
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P083
Company Equipment ID:	Microstrand Source 14A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P084
Company Equipment ID:	Microstrand Source 14B
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P085
Company Equipment ID:	Microstrand Source 14C
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Final Permit-to-Install
Johns Manville - Waterville 07
Permit Number: P0120652
Facility ID: 0448000013
Effective Date: 8/1/2016

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
 - (1) Standard Term and Condition A.2.a), Severability Clause
 - (2) Standard Term and Condition A.3.c) through A. 3.e)General Requirements
 - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A.16., Fees
 - (10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

- a) 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.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they 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 and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

- a) 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 re-issuance, or modification

- 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, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying 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.

4. 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:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- 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, 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.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Toledo Department of Environmental Services.

- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Toledo Department of Environmental Services. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
 - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Toledo Department of Environmental Services every six months, by January 31 and July 31 of each year for the previous six calendar months. 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.
 - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Toledo Department of Environmental Services in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

- a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted

local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

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

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

- c) The permittee shall submit progress reports to the Toledo Department of Environmental Services concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. 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.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Toledo Department of Environmental Services.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Toledo Department of Environmental Services. 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, 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.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a Permit-to-Install.

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the

Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.

13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

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

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 by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. 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. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

18. 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.

19. 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.



Final Permit-to-Install
Johns Manville - Waterville 07
Permit Number: P0120652
Facility ID: 0448000013
Effective Date:8/1/2016

B. Facility-Wide Terms and Conditions



Final Permit-to-Install
Johns Manville - Waterville 07
Permit Number: P0120652
Facility ID: 0448000013
Effective Date:8/1/2016

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

- a) None.



Final Permit-to-Install
Johns Manville - Waterville 07
Permit Number: P0120652
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Effective Date: 8/1/2016

C. Emissions Unit Terms and Conditions

**1. Emissions Unit Group - P035 through P085 Microstrand North Bank:
 P035,P036,P037,P038,P039,P040,P041,P042,P043,P044,P045,P046,P047,P048,P049,P050,P051,
 P052,P053,P054,P055,P056,P057,P058,P059,P060,P061,P062,P063,P064,P065,P066,P067,P068,
 P069,P070,P071,P072,P073,P074,P075,P076,P077,P078,P079,P080,P081,P082,P083,P084,P085**

EU ID	Operations, Property and/or Equipment Description
P035	Microstrand Source 1A vented to wire drum collector with wet cleaning (EMC)
P036	Microstrand Source 1B vented to wire drum collector with wet cleaning (EMC)
P037	Microstrand Source 1C vented to wire drum collector with wet cleaning (EMC)
P038	Microstrand Source 1D vented to wire drum collector with wet cleaning (EMC)
P039	Microstrand Source 1E vented to wire drum collector with wet cleaning (EMC)
P040	Microstrand Source 1F vented to wire drum collector with wet cleaning (EMC)
P041	Microstrand Source 2A vented to wire drum collector with wet cleaning (EMC)
P042	Microstrand Source 2B vented to wire drum collector with wet cleaning (EMC)
P043	Microstrand Source 2C vented to wire drum collector with wet cleaning (EMC)
P044	Microstrand Source 2D vented to wire drum collector with wet cleaning (EMC)
P045	Microstrand Source 2E vented to wire drum collector with wet cleaning (EMC)
P046	Microstrand Source 2F vented to wire drum collector with wet cleaning (EMC)
P047	Microstrand Source 3A vented to wire drum collector with wet cleaning (EMC)
P048	Microstrand Source 3B vented to wire drum collector with wet cleaning (EMC)
P049	Microstrand Source 3C vented to wire drum collector with wet cleaning (EMC)
P050	Microstrand Source 3D vented to wire drum collector with wet cleaning (EMC)
P051	Microstrand Source 3E vented to wire drum collector with wet cleaning (EMC)
P052	Microstrand Source 3F vented to wire drum collector with wet cleaning (EMC)
P053	Microstrand Source 4A vented to wire drum collector with wet cleaning (EMC)
P054	Microstrand Source 4B vented to wire drum collector with wet cleaning (EMC)
P055	Microstrand Source 4C vented to wire drum collector with wet cleaning (EMC)
P056	Microstrand Source 5A vented to wire drum collector with wet cleaning (EMC)
P057	Microstrand Source 5B vented to wire drum collector with wet cleaning (EMC)
P058	Microstrand Source 5C vented to wire drum collector with wet cleaning (EMC)
P059	Microstrand Source 6A vented to wire drum collector with wet cleaning (EMC)
P060	Microstrand Source 6B vented to wire drum collector with wet cleaning (EMC)
P061	Microstrand Source 6C vented to wire drum collector with wet cleaning (EMC)
P062	Microstrand Source 7A vented to wire drum collector with wet cleaning (EMC)
P063	Microstrand Source 7B vented to wire drum collector with wet cleaning (EMC)
P064	Microstrand Source 7C vented to wire drum collector with wet cleaning (EMC)
P065	Microstrand Source 8A vented to wire drum collector with wet cleaning (EMC)
P066	Microstrand Source 8B vented to wire drum collector with wet cleaning (EMC)
P067	Microstrand Source 8C vented to wire drum collector with wet cleaning (EMC)
P068	Microstrand Source 9A vented to wire drum collector with wet cleaning (EMC)
P069	Microstrand Source 9B vented to wire drum collector with wet cleaning (EMC)
P070	Microstrand Source 9C vented to wire drum collector with wet cleaning (EMC)
P071	Microstrand Source 10A vented to wire drum collector with wet cleaning (EMC)
P072	Microstrand Source 10B vented to wire drum collector with wet cleaning (EMC)
P073	Microstrand Source 10C vented to wire drum collector with wet cleaning (EMC)
P074	Microstrand Source 11A vented to wire drum collector with wet cleaning (EMC)
P075	Microstrand Source 11B vented to wire drum collector with wet cleaning (EMC)

EU ID	Operations, Property and/or Equipment Description
P076	Microstrand Source 11C vented to wire drum collector with wet cleaning (EMC)
P077	Microstrand Source 12A vented to wire drum collector with wet cleaning (EMC)
P078	Microstrand Source 12B vented to wire drum collector with wet cleaning (EMC)
P079	Microstrand Source 12C vented to wire drum collector with wet cleaning (EMC)
P080	Microstrand Source 13A vented to wire drum collector with wet cleaning (EMC)
P081	Microstrand Source 13B vented to wire drum collector with wet cleaning (EMC)
P082	Microstrand Source 13C vented to wire drum collector with wet cleaning (EMC)
P083	Microstrand Source 14A vented to wire drum collector with wet cleaning (EMC)
P084	Microstrand Source 14B vented to wire drum collector with wet cleaning (EMC)
P085	Microstrand Source 14C vented to wire drum collector with wet cleaning (EMC)

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

(1) b)(1)c., b)(1)h., d)(8)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03(T) OAC rule 3745-31-05(A)(3) (Chapter 31 Modification)	Carbon monoxide (CO) emissions shall not exceed 3.4 tons per month averaged over a 12-month rolling period.
b.	OAC rule 3745-31-05(A)(3) June 30, 2008	See b)(2)a.
c.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	See b)(2)b.
d.	OAC rule 3745-31-05(D)	See b)(2)c.
e.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
f.	OAC rule 3745-17-11(B)(1)	0.551 pound of particulate emissions (PE) per hour (total from all stacks serving this emissions unit)
g.	OAC rule 3745-18-06(C)	Exemption - See b)(2)d.
h.	ORC 3704.03(F)(4)	See d)(8)

(2) Additional Terms and Conditions

- a. Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for the nitrogen oxides (NO_x), sulfur dioxide (SO₂), particulate matter 10 microns or less in aerodynamic diameter (PM₁₀), and volatile organic compound (VOC) emissions from this emissions unit has resulted in no emission limitations being established for this emissions unit under this rule.

Emissions of NO_x, SO₂, PM₁₀ and VOC are generated as the products of combustion from the use of natural gas in the process. The potential emissions for the above mentioned products of combustion are based on operation at the maximum burner firing rate for 8,760 hours per year and result in negligible emission quantities, and, therefore, have not been addressed through individual BAT limitations for natural gas combustion within this permit.

These Best Available Technology (BAT) emission limits apply until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

- b. The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO_x, SO₂, PM₁₀ and VOC emissions from this air contaminant source since the uncontrolled potential to emit for NO_x, SO₂, PM₁₀ and VOC is each less than 10 tons/year.

These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

- c. CO emissions from emissions units P035 through P126 combined shall not exceed 839.1 tons per rolling, 12-month period. These emissions unit have been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the emissions, upon issuance of this permit.
- d. This emissions unit has a rated capacity that is less than 1000 pounds per hour process weight input, burns natural gas only as fuel, and is, therefore, exempt from the requirements of this rule.
- e. The emissions from the emissions units listed above shall be vented to the EMC control system when one or more of the emissions units are in operation.

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

c) Operational Restrictions

- (1) The maximum production rate and operating hours of Emissions Units P035 through P126 shall be restricted by the following equation for purposes of restricting the potential to emit for CO emissions.

$$839.1 \text{ tons CO per rolling, 12 month period} = \sum_{o=1}^q (Q_i \times EF_{a,CO,i} \div 2000) + \sum_{o=1}^q (T_o \times EF_{b,CO} \div 2000)$$

Where:

Q_i = amount of product group i produced in current month and previous 11 months (tons);

$EF_{a,CO,i}$ = process emission factor for CO and product group i (lb/ton)

n = number of different product groups produced in current month and previous 11 months;

T_o = operating time for emissions unit o for current month and previous 11 months (hours)

$EF_{b,CO}$ = pot burner natural gas combustion emission factor for CO, (lb/hr); and

o = number of different units that operated in current month and previous 11 months.

(2) The permittee shall burn only natural gas as fuel in this emissions unit.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain the following monthly records for purposes of demonstrating compliance with the 839.1 tons per rolling, 12-month period CO emissions limitation for Emissions Units P035 through P126 combined.

- a. name and identification of each product group produced;
- b. process emission factor CO emissions for each product group produced, in pounds per ton;
- c. the amount of each product group produced, in tons;
- d. total operating hours for each emissions unit;
- e. pot burner natural gas combustion emission factor for CO,;
- f. the monthly CO emissions from each emissions unit; and
- g. the 12-month rolling CO emissions from P035 through P126 combined.

(2) For purposes of demonstrating compliance with the CO emissions limitation of 3.4 tons per month averaged over a 12-month rolling period, the permittee shall maintain monthly records of the following information for this emissions unit:

- a. the monthly CO emissions, in tons;

- b. the tons of CO emissions per month from this emissions unit averaged over a twelve-month rolling period.
- (3) 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.
- (4) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the EMC control system is between 1.5 to 3.5 inches of water.
- (5) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the EMC control system when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the EMC control system on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

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

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and

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

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

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

- (6) The permittee shall perform weekly 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.
- (7) Notwithstanding the frequency of reporting requirements specified in e), the permittee may reduce the frequency of visual observations from weekly to once every two weeks for this emissions unit if the following conditions are met:
- a. for one full quarter the facility's visual observations indicate no visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in d)(5).

The permittee shall revert to weekly observations if any visible emissions are observed.

- (8) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because maximum annual emissions increase for each toxic air contaminant from P035 through P085 combined as a result of this modification, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install(PTI) prior to making a "modification" as defined by OAC rule

3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
 - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;
 - c. each incident of deviation described in "a." (above) where a prompt investigation was not conducted;
 - d. each incident of deviation described in "a." where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - e. each incident of deviation described in "a." where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

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

- (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 through the Ohio EPA's eBusiness Center: Air Services online web portal by January 31 and July 31 of each year and shall cover the previous 6-month period.
- (4) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

all exceedances of the 839.1 tons per rolling, 12-month period CO emissions limitation for Emissions Units P035 through P126 combined;

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

(5) Unless other arrangements have been approved by the director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average for stack emissions

Applicable Compliance Method:

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

b. Emission Limitation:

0.551 pound of PE per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60 Appendix A, or other U.S. EPA approved test method, with prior approval from the Ohio EPA.

c. Emission Limitation:

Carbon monoxide (CO) emissions shall not exceed 3.4 tons per month averaged over a 12-month rolling period.

Applicable Compliance Method:

This emissions limitation was developed by multiplying the permittee-developed CO emission factor (9.3 lbs/hr) for the main process determined based on the worst case product for CO emissions as determined through engineering stack testing and internal testing by the maximum annual hours of operation (8,760 hrs/yr), dividing by 2,000 pounds per ton, and dividing by 12 months per year.

When requested by Ohio EPA, the permittee shall determine a CO emission factor for use in this calculation using Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. Emission Limitation:

CO emissions from emissions units P035 through P126 combined shall not exceed 839.1 tons per rolling, 12-month period;

Applicable Compliance Method:

The records required by d)(1) shall serve as demonstration of compliance with this emission limitation.

(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 starting production of each product group where a CO emissions test has not previously been conducted to determine a CO emission factor for the product group.
- b. The emission testing shall be conducted to determine a CO emission factor for the product group.
- c. The emission units vent to a common plenum where emissions from all the units are commingled prior to being routed to the EMC control system and ultimately emitted to the atmosphere through the stacks. The emission units run different product groups and the same product group is never run on all emission units at the same time. Therefore, in order to determine the CO emission factor for an individual product group, the permittee shall conduct, or have conducted, emission testing at the outlet of the emission unit running the product group to be tested, and prior to commingling with emissions from all other units in the plenum.
- d. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for CO, Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. Given the need to conduct emissions testing for CO and the associated flowrates at the outlet of the emission units and prior to the common plenum, it is expected that port locations may need to be located closer to disturbances (bends, expansions, or contractions) than specified in U.S, EPA approved test methods. Proposed test methods and procedures, including port locations, will be included in the "Intent to Test" notification required under f)(2)f below. If cyclonic flow is present in the duct, a directional probe will be used for determination of flowrates.
- e. During the emissions testing, the emissions unit shall be operated under operational conditions approved in advance by the appropriate Ohio EPA District Office or local air agency. Operational conditions that may need to be approved include, but are not limited to, the production rate, the type of material processed, material make-up (solvent content, etc.), or control equipment operational limitations (burner temperature, precipitator voltage, etc.). In general, testing shall be done under "worst case" conditions expected during the life of the permit. As part of the information provided in the "Intent to Test" notification form

described below, the permittee shall provide a description of the emissions unit operational conditions they will meet during the emissions testing and describe why they believe “worst case” operating conditions will be met. Prior to conducting the test(s), the permittee shall confirm with the appropriate Ohio EPA District Office or local air agency that the proposed operating conditions constitute “worst case”. Failure to test under the approved conditions may result in Ohio EPA not accepting the test results as a demonstration of compliance.

- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- g. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

- (1) None.