



State of Ohio Environmental Protection Agency

Street Address:

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

CERTIFIED MAIL

**RE: FINAL PERMIT TO INSTALL
DEFIANCE COUNTY
Application No: 03-17389
Fac ID: 0320010005**

DATE: 4/22/2008

Johns Manville International Inc. Plt08
G R Bonin
925 Carpenter Road
Defiance, OH 43512

	TOXIC REVIEW
Y	PSD
	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
Y	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging 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 Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final 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 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
309 South Fourth Street, Room 222
Columbus, OH 43215

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control



**Permit To Install
Terms and Conditions**

**Issue Date: 4/22/2008
Effective Date: 4/22/2008**

FINAL PERMIT TO INSTALL 03-17389

Application Number: 03-17389

Facility ID: 0320010005

Permit Fee: **\$2000**

Name of Facility: Johns Manville International Inc. Plt08

Person to Contact: G R Bonin

Address: 925 Carpenter Road
Defiance, OH 43512

Location of proposed air contaminant source(s) [emissions unit(s)]:

**925 Carpenter Road
Defiance, Ohio**

Description of proposed emissions unit(s):

Modification of forming and collection units 84, 85 and 87.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described 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

A handwritten signature in cursive script that reads "Chris Korleski".

Chris Korleski
Director

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit-To-Install General Terms and Conditions

1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, 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:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. 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 B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency 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.
 - iv. If this permit is for an emissions unit located at a Title V facility, then 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.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports 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).

3. Risk Management Plans

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

4. Title IV Provisions

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

5. Severability Clause

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

6. General Requirements

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

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. 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.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any 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. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

- a. 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:
 - 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 ORC section 3704.08.
 - 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.

10. Permit-To-Operate Application

- a. If 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 the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this permit is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

12. 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.

13. Permit-To-Install

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

B. State Only Enforceable Permit-To-Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. 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 appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from 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 appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. 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.

4. Authorization To Install or Modify

If applicable, authorization to install or modify any new or existing 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 modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. 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 party shows good cause for any such extension.

5. Construction of New Sources(s)

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.

6. 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.

7. 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).

8. Construction Compliance Certification

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) that the facility has been constructed in accordance with the permit-to-install application and the terms and conditions of the permit-to-install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

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

C. Permit-To-Install Summary of Allowable Emissions

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
CO	788.40
PM10	131.28
VOC	42.06
SO2	2.64
NOx	16.17

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

1. The permittee shall shutdown the following Plant 2 emissions units according to the Defiance Consolidation Timeline schedule submitted in the application for this PTI :

Table 1. - Future decreases due to shutdown sources

Ohio EPA ID	Source Description
P010	Line#25 forming and collection
P009	Line#24 forming and collection (PTI 03-13943 issued May 22, 2003)
P008	Line#23 forming and collection (PTI 03-13943 issued May 22, 2003)
P016	Line #23 curing operation

2. The permittee shall notify the agency within 30 days of ceasing operation of emissions unit P010, P009, P008 and P016. The notification shall contain the exact shut down date of the emissions unit.

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

1. Modeling to demonstrate compliance with ORC 3704.03(F)(4)(b) ["Review of New Sources of Air Toxics Emissions, Option A."] was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (P013) - Line 84 forming and collection
(Modification of PTI 03-17015 issued January 2, 2006 to allow for an alternative product to be manufactured)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-10 through 20	Carbon monoxide (CO) emissions shall not exceed 60.0 lbs/hr and 262.80 tons per rolling 12-month period. See A.I.2.a. and section A.1 of Part II - Facility Specific Terms and Conditions.
OAC rule 3745-31-05(A)(3)(b)	See Section A.I.2.b.
OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). Particulate matter equal to or less than 10 microns in size (PM ₁₀) emissions shall not exceed 9.99 pounds per hour (lbs/hr) and 43.76 tons per year (tpy). (See A.I.2.c) Volatile organic compounds (VOC) emissions shall not exceed 3.20 lbs/hr and 14.02 tpy.
OAC rule 3745-17-07(A)	Visible PE from the stack(s) serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.
40 CFR Part 63, Subpart NNN	See A.I.2.e.
OAC rule 3745-21-07(G)(2)	None (See A.II.1).
OAC rule 3745-17-11(B)	The emission limitations specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-21-08(B)	See A.I.2.d.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-114-01 ORC 3704.03(F)	See section B.1 of Part II - Facility Specific Terms and Conditions
OAC rule 3745-18-06(E)	See A.I.2.f.

2. Additional Terms and Conditions

2.a Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that no control technologies for CO were cost effective.

2.b The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the nitrogen oxides (NO_x) and sulfur dioxide (SO₂) emissions from this air contaminant source since the uncontrolled potential to emit for each pollutant is less than ten tons per year.

The potential to emit for NO_x emissions for this emissions unit is 5.39 tpy; determined by multiplying the maximum hourly emission rate of 1.23 lbs/hr (as determined by stack testing) by the maximum operating schedule of 8760 hours per year.

The potential to emit for SO₂ emissions for this emissions unit is 0.88 tpy; determined by multiplying the maximum hourly emission rate of 0.20 lbs/hr (as determined by stack testing) by the maximum operating schedule of 8760 hours per year.

2.c All particulate matter emissions are PM₁₀.

2.d The design of the emissions unit and the technology associated with the current operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

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

- 2.f The potential to emit for SO₂ from this emissions unit (see A.I.2.b) is less than the allowable emission limitation established pursuant to this rule.

II. Operational Restrictions

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

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform checks at least five (5) days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

2. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from at least 5 days per week to weekly readings if the following conditions are met:
- a. for one (1) full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1

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

3. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the company identification for each liquid organic material employed in this emissions unit; and
 - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which abnormal visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall notify the Director (Northwest District Office) in writing of any monthly record showing the use of any photochemically reactive materials. The notification shall include a copy of such record and shall be sent to the Director (the Northwest District Office or local air agency) within 30 days after the exceedance occurs.

V. Testing Requirements

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

- a. Emission Limitations: 9.99 lbs PM₁₀/hr, 43.76 tpy PM₁₀

Applicable Compliance Method: The hourly allowable PM₁₀ limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

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

- b. Emission Limitations: 60.0 lbs CO/hr, 262.80 tons CO per rolling 12-month period

Applicable Compliance Method: The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 and 10 of 40 CFR, Part 60, Appendix A.

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

- c. Emission Limitations: 3.20 lbs VOC/hr, 14.02 tons VOC/yr

Applicable Compliance Method: The hourly allowable VOC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Method 1-4, and 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

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

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

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

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment - (P013) - Line 84 forming and collection

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	None

2. **Additional Terms and Conditions**

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (P091) - Line 85 forming and collection
(Modification of PTI 03-17015 issued January 2, 2006 to allow for an alternative product to be manufactured)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-10 through 20	Carbon monoxide (CO) emissions shall not exceed 60.0 lbs/hr and 262.80 tons per rolling 12-month period. See A.I.2.a. and section A.1 of Part II - Facility Specific Terms and Conditions.
OAC rule 3745-31-05(A)(3)(b)	See A.I.2.b.
OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). Particulate matter equal to or less than 10 microns in size (PM ₁₀) emissions shall not exceed 9.99 pounds per hour (lbs/hr) and 43.76 tons per year (tpy). (See A.I.2.c) Volatile organic compounds (VOC) emissions shall not exceed 3.20 lbs/hr and 14.02 tpy.
OAC rule 3745-17-07(A)	Visible PE from the stack(s) serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.
40 CFR Part 63, Subpart NNN	See A.I.2.e.
OAC rule 3745-21-07(G)(2)	None (See A.II.1).
OAC rule 3745-17-11(B)	The emission limitations specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-21-08(B)	See A.I.2.d.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-114-01 ORC 3704.03(F)	See section B.1 of Part II - Facility Specific Terms and Conditions
OAC rule 3745-18-06(E)	See A.I.2.f.

2. Additional Terms and Conditions

2.a Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that no control technologies for CO were cost effective.

2.b The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the nitrogen oxides (NO_x) and sulfur dioxide (SO₂) emissions from this air contaminant source since the uncontrolled potential to emit for each pollutant is less than ten tons per year.

The potential to emit for NO_x emissions for this emissions unit is 5.39 tpy; determined by multiplying the maximum hourly emission rate of 1.23 lbs/hr (as determined by stack testing) by the maximum operating schedule of 8760 hours per year.

The potential to emit for SO₂ emissions for this emissions unit is 0.88 tpy; determined by multiplying the maximum hourly emission rate of 0.20 lbs/hr (as determined by stack testing) by the maximum operating schedule of 8760 hours per year.

2.c All particulate matter emissions are PM₁₀.

2.d The design of the emissions unit and the technology associated with the current operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

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

- 2.f The potential to emit for SO₂ from this emissions unit (see A.I.2.b) is less than the allowable emission limitation established pursuant to this rule.

II. Operational Restrictions

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

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform checks at least five (5) days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

2. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from at least 5 days per week to weekly readings if the following conditions are met:
- a. for one (1) full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1

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

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Issued: 4/22/2008

Facility ID: 0320010005
Emissions Unit ID: P091

3. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the company identification for each liquid organic material employed in this emissions unit; and
 - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which abnormal visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall notify the Director (Northwest District Office) in writing of any monthly record showing the use of any photochemically reactive materials. The notification shall include a copy of such record and shall be sent to the Director (the Northwest District Office or local air agency) within 30 days after the exceedance occurs.

V. Testing Requirements

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

- a. Emission Limitations: 9.99 lbs PM₁₀/hr, 43.76 tpy PM₁₀

Applicable Compliance Method: The hourly allowable PM₁₀ limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

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

- b. Emission Limitations: 60.0 lbs CO/hr, 262.80 tons CO per rolling 12-month period

Applicable Compliance Method: The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 and 10 of 40 CFR, Part 60, Appendix A.

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

- c. Emission Limitations: 3.20 lbs VOC/hr, 14.02 tons VOC/yr

Applicable Compliance Method: The hourly allowable VOC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Method 1-4, and 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

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

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

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

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment - (P091) - Line 85 forming and collection

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	None

2. **Additional Terms and Conditions**

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (P092) - Line 87 forming and collection
(Modification of PTI 03-17015 issued January 2, 2006 to allow for an alternative product to be manufactured)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-10 through 20	Carbon monoxide (CO) emissions shall not exceed 60.0 lbs/hr and 262.80 tons per rolling 12-month period. See A.I.2.a. and section A.1 of Part II - Facility Specific Terms and Conditions.
OAC rule 3745-31-05(A)(3)(b)	See A.I.2.b.
OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). Particulate matter equal to or less than 10 microns in size (PM ₁₀) emissions shall not exceed 9.99 pounds per hour (lbs/hr) and 43.76 tons per year (tpy). (See A.I.2.c) Volatile organic compounds (VOC) emissions shall not exceed 3.20 lbs/hr and 14.02 tpy.
OAC rule 3745-17-07(A)	Visible PE from the stack(s) serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.
40 CFR Part 63, Subpart NNN	See A.I.2.e.
OAC rule 3745-21-07(G)(2)	None (See A.II.1).
OAC rule 3745-17-11(B)	The emission limitations specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-21-08(B)	See A.I.2.d.
OAC rule 3745-114-01 ORC 3704.03(F)	See section B.1 of Part II - Facility Specific Terms and Conditions
OAC rule 3745-18-06(E)	See A.I.2.f.

2. Additional Terms and Conditions

2.a Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that no control technologies for CO were cost effective.

2.b The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the nitrogen oxides (NO_x) and sulfur dioxide (SO₂) emissions from this air contaminant source since the uncontrolled potential to emit for each pollutant is less than ten tons per year.

The potential to emit for NO_x emissions for this emissions unit is 5.39 tpy; determined by multiplying the maximum hourly emission rate of 1.23 lbs/hr (as determined by stack testing) by the maximum operating schedule of 8760 hours per year.

The potential to emit for SO₂ emissions for this emissions unit is 0.88 tpy; determined by multiplying the maximum hourly emission rate of 0.20 lbs/hr (as determined by stack testing) by the maximum operating schedule of 8760 hours per year.

2.c All particulate matter emissions are PM₁₀.

2.d The design of the emissions unit and the technology associated with the current operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.e 40 CFR Part 63 Subpart NNN is not applicable to existing flame attenuation lines producing bonded heavy-density product. For the purpose of 40 CFR 63 Subpart NNN, this modified emissions unit is still considered an existing emissions unit.

(The modifications performed do not constitute reconstruction as defined in 40 CFR 63.2)

- 2.f The potential to emit for SO₂ from this emissions unit (see A.I.2.b) is less than the allowable emission limitation established pursuant to this rule.

II. Operational Restrictions

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

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform checks at least five (5) days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from 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:
- the color of the emissions;
 - whether the emissions are representative of normal operations;
 - if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - the total duration of any visible emission incident; and
 - 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.

2. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from at least 5 days per week to weekly readings if the following conditions are met:
- for one (1) full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1

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

3. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the company identification for each liquid organic material employed in this emissions unit; and
 - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which abnormal visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall notify the Director (Northwest District Office) in writing of any monthly record showing the use of any photochemically reactive materials. The notification shall include a copy of such record and shall be sent to the Director (the Northwest District Office or local air agency) within 30 days after the exceedance occurs.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitations: 9.99 lbs PM₁₀/hr, 43.76 tpy PM₁₀

Applicable Compliance Method: The hourly allowable PM₁₀ limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

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

- b. Emission Limitations: 60.0 lbs CO/hr, 262.80 tons CO per rolling 12-month period

Applicable Compliance Method: The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 and 10 of 40 CFR, Part 60, Appendix A.

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

- c. Emission Limitations: 3.20 lbs VOC/hr, 14.02 tons VOC/yr

Applicable Compliance Method: The hourly allowable VOC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Method 1-4, and 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

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

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

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

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment - (P092) - Line 87 forming and collection

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	None

2. **Additional Terms and Conditions**

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None