

Synthetic Minor Determination and/or  Netting Determination

Permit To Install ~~03-08472~~

A. Source Description

Johns Manville International [JM] (formerly called Schuller International) plans to install a new production line (Line 89) for manufacturing specialty insulation at Plant 08. As part of JM's plan to avoid federal Prevention of Significant Deterioration (PSD) rules, the company has requested a hours of operation restriction, abatement on the six (6) sources in this permit action, abatement on Line 82 and contemporaneous credits/reductions have been achieved by removal of several sources within the previous 5 years. These credits contribute to offset the increase in PM<sub>10</sub> from the Line 89 to below the PSD significance threshold of 15 TPY. NO<sub>x</sub> emissions will restricted to a level lower than the PSD threshold by a restriction on hours of operation.

B. Facility Emissions and Attainment Status

JM plant 8 is a major facility for PM<sub>10</sub>, nitrogen oxides, and carbon monoxide. The facility is located in Defiance County which is attainment for all criteria pollutants. The facility shall remain a major facility after the issuance of this permit.

C. Source Emissions

In order to facilitate the installation of these six (6) sources (P047-P052) JM has agreed to cease operation of P014 concurrent with the start-up of Line 89. Sources removed from operation since October 1989 to be used to offset new sources emissions from Line 89 include:

S  
o  
u  
r  
c  
e  
D  
e  
s  
c

n  
e  
8  
5  
C  
o  
l  
l  
e  
c  
t  
i  
o  
n

L  
i  
n  
e  
8  
5  
M  
o  
l  
d  
P  
r  
e  
s  
s

L  
i  
n  
e  
8  
6  
M  
o  
l  
d  
P  
r  
e  
s  
s

O  
f  
f  
l  
i

	<u>Source #</u>
f	
S	
p	P014
r	P010
a	P010
y	P004
B	P004
o	P032
o	K001
t	-
h	

L  
i  
n  
e  
8  
2  
A  
b  
a  
t  
e  
m  
e  
n  
t  
(  
o  
f  
f  
s  
e  
t  
)

NET TOTAL

PM10 Net Emissions (2yr Ave.)

-29.30  
-1.60  
-0.70  
-0.30  
-0.30  
-1.00  
-0.90  
-6.10  

---

-40.3

Potential emissions of nitrogen oxide (NO<sub>x</sub>) from this installation are 41.0 tons per year. The company has requested a restriction on

the hours of operation for sources P048-P050 of 8400 hours per year and P051 of 8000 hours per year. With this restriction the potential NOx emissions will be 37.94 tpy.

Potential particulate emissions (PM<sub>10</sub>) from this installation are 81.06 tons PE/year with the restriction on hours requested above. The net increase in emissions would be 40.66 tpy, which would trigger a PSD review. The company will install the following control equipment and has requested a rolling 365-day restriction on PE of 54.7 tpy which will result in a net increase of 14.4 tpy, therefore a PSD review will not be triggered:

<u>Source #</u>	<u>Description</u>	<u>Control Device</u>	<u>PE lb/hr</u>	<u>PE TPY</u>
P047	89 Hot End	Baghouse (3)	0.70	2.94
P048	89 Collect. Mod. A	Venturi Scrubber	6.90	28.98
P049	89 Collect. Mod. B	Venturi Scrubber	6.20	26.04
P050	89 Collect. Mod C	Venturi Scrubber	4.50	18.90
P051	89 Curing Oven	Thermal Oxidizer	0.45	1.80
P052	89 Cooling Table	Venturi Scrubber	0.60	2.40
				81.06
TOTAL				(54.7 rolling 365-day group limitation)

Contem  
poraneo  
us  
Emissio  
ns  
Increase  
s and  
Decreas  
es:  
With  
the  
removal  
of the  
previou  
s

uncontrolled sources noted in C above, the abatement on Line 82 and the installation of the six (6) new sources comprising Line 89, the net change in particulate emissions at the facility is as follows:

54.7 tpy  
- 40.3  
tpy =  
14.4 tpy

D. **Conclusion**

The installation of Line 89, emissions units P047-P052, and the specified contemporaneous emission

reductions in other sources will result in a net increase of particulate emissions of 14.3 tpy. This level of particulate emissions does not trigger a PSD review for particulate matter less than 10 microns in diameter (PM10). Therefore, the installation of these new sources is not subject to PSD regulations.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL MODIFICATION  
DEFIANCE COUNTY**

**CERTIFIED MAIL**

Street Address:

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:  
Lazarus Gov.  
Center

**Application No:** 03-08472

**DATE:** 10/23/2001

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

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install modification for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit modification. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit modification should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install modification may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install modification a fee of **\$ 1800** will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

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

CC: USEPA

NWDO

**OhioEPA**  
Permit To Install

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**DRAFT MODIFICATION OF PERMIT TO INSTALL 03-08472**

Application Number: 03-08472  
APS Premise Number: 0320010005  
Permit Fee: **To be entered upon final issuance**  
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 (1 of 2) of Line 89 to resolve notice of violation.**

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification 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 source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

**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 quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.10 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

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

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports 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 reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

**7. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

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

**9. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally

**Johns Manville International Inc. Plt08**

**Facility ID: 0320010005**

**PTI Application: 03-08472**

**Issued: To be entered upon final issuance**

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. Source Operation and Operating Permit Requirements After Completion of Construction**

- 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

**Johns Manville International Inc. Plt08**

**Facility ID: 0320010005**

**PTI Application: 03-08472**

**Issued: To be entered upon final issuance**

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 To Install 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 thirty (30) 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.

**Johns Manville International Inc. Plt08**

**Facility ID: 0320010005**

**PTI Application: 03-08472**

**Issued: To be entered upon final issuance**

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

**1. Compliance Requirements**

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

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

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping 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 quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**3. 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. 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.

**5. Termination of Permit To Install**

This permit to install shall terminate within eighteen months of the effective date of the permit to install 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.

#### **6. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. 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 the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install 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.

#### **7. 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.

#### **8. 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).

**Johns Manville International Inc. Plt08**

**Facility ID: 0320010005**

**PTI Application: 03-08472**

**Issued: To be entered upon final issuance**

**9. Construction Compliance Certification**

The applicant shall provide Ohio EPA with a written certification (see enclosed form) 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.

Johns

PTI A

Emissions Unit ID: P047

**Issued: To be entered upon final issuance**

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

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

**C. Permit To Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PE*	54.70
OC	30.07
NOx	37.94
CO	70.05
Formaldehyde	7.61
Phenol	7.93

\*All PE is assumed  
to be in the form of  
PM<sub>10</sub>

**Johns Manville International Inc. Plt08**

**PTI Application: 03-08472**

**Issued: To be entered upon final issuance**

**Facility ID: 0320010005**

**Johns**

**PTI A**

Emissions Unit ID: P047

**Issued: To be entered upon final issuance**

**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

1. Johns Manville International, shall cease operation of Line 85 (Ohio EPA source no. P014) within 30 days of the installation of the new Line 89 (Ohio EPA Source no. P047-P052) and prior to start up. JM shall install additional control equipment (centrifugal impingement scrubber) on Line 82,

**Johns**

**PTI A**

**Issued: To be entered upon final issuance**

Emissions Unit ID: P047

collecti  
on  
module  
(Ohio  
EPA  
Source  
No.  
P012)  
prior  
to the  
start-u  
p of  
the  
new  
Line  
89  
(Ohio  
EPA  
source  
no.  
P047-P  
052).  
This  
modific  
ation  
will  
result  
in a  
reducti  
on in  
actual  
PE  
emissio  
ns  
from  
the  
source  
such  
that a  
reducti  
on in

**Johns**

**PTI A**

**Issued: To be entered upon final issuance**

Emissions Unit ID: P047

the allowable emission rate from 10 lbs PE per hour to 8.1 lbs PE per hour can be achieved by the added control device. The permit allowable for sources no. P012 shall thus be modified to 8.1 lbs PE per hour by this permit to install.

The following

**Johns**

**PTI A**

Emissions Unit ID: P047

**Issued: To be entered upon final issuance**

sources  
have  
been or  
will be,  
shut  
down  
upon  
start  
up of  
line 89:

<u>Source Description</u>	<u>Source number</u>
Line 85 Collection	P014
Line 85 Mold Press	P010
Line 86 Mold Press	P010
Offline Mold Press 140	P004
Offline Mold Press 150	P004
310 Trim Press	P032
Encapsulator	PTI #03-7467
Smurf Spray Booth	K001

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

None

**Johns  
PTI A**

Emissions Unit ID: P047

**Issued: To be entered upon final issuance**

**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

**Johns  
PTI A**

Emissions Unit ID: P047

**Issued: To be entered upon final issuance**

exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P047 - Line 89 Hot End Batch Melter w/three baghouses [Administrative modification of PTI 03-8472 issued March 15, 1995]	OAC rule 3745-31-05(D)	54.7 tons particulate emissions (PE) per rolling 365-day period (A.I.2.a)
	OAC rule 3745-31-05(A)(3)	Control requirements (See A.I.2.b)
		0.70 lb PE/hr PE, 2.94 tons PE/yr (see A.I.2.c)
		Visible particulate emissions shall not exceed 0% opacity as a 6-minute average.
	OAC rule 3745-17-11(B)	See A.I.2.d.
	OAC rule 3745-17-07(A)	See A.I.2.d.

**2. Additional Terms and Conditions**

**Johns****PTI A**

Emissions Unit ID: P047

**Issued: To be entered upon final issuance**

- 2.a** The permittee has requested a federally enforceable restriction of 54.7 tons PE per rolling 365-day period for purposes of avoiding PSD (see A.II.1).
- 2.b** "Best Available Technology" (BAT) for this emissions unit has been determined to be the use of three baghouse dust collectors, operated in parallel to provide full time control of emissions during individual baghouse cleaning cycles.
- 2.c** All PE is assumed to be in the form of  $PM_{10}$ .
- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Johns

PTI A

Emissions Unit ID: P047

**Issued: To be entered upon final issuance****II. Operational Restrictions**

1. Combined annual PE from Line 89, which include emissions units: P047, P048, P049, P050, P051 and P052, shall not exceed 54.7 tons/yr based upon a rolling, 365-day summation.

To ensure enforceability during the first 12 calendar months of operation, under the provisions of this permit, the permittee shall not exceed the emission levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Operating Hours</u>	<u>Maximum Allowable Cumulative Emissions of PE (Tons)</u>
1	1,000	4.56
1-2	2,000	9.12
1-3	2,800	13.7
1-4	3,600	18.2
1-5	4,300	22.8
1-6	5,000	27.4
1-7	5,600	31.9
1-8	6,200	36.5
1-9	6,800	41.0
1-10	7,400	45.6
1-11	7,900	50.2
1-12	8,400	54.7

After the first 12 calendar months of operation, under the provisions of this permit, compliance with the annual emission limitation for PE shall be based upon a rolling, 365-day summation of the daily emissions.

2. The pressure drop across the baghouses shall be maintained within the range 0.5-10 inches of water, while this emissions unit is in operation.

**III. Monitoring and/or Recordkeeping Requirements**

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

2. The permittee shall maintain daily records of the following information for Line 89 (emissions units P047, P048, P049, P050, P051 and P052):
  - a. the calculated PE rate, in pounds per day;
  - b. for the first 12 months of operation under the provisions of this permit, the cumulative daily PE rate, in tons; and
  - c. after the first 12 months of operation under the provisions of this permit, the annual PE rate, in tons, based on a rolling, 365-day summation of the daily PE rate.

#### IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. These deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.
2. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
  - a. for the first 12 calendar months of operation under the provisions of this permit, all exceedance of the allowable cumulative PE

Issued: To be entered upon final issuance

levels;  
and

- b. after the first 12 calendar months of operation under the provisions of this permit, all exceedances of the rolling, 365-day PE rate.

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

**V. Testing Requirements**

- 1. Compliance Methods Requirements Compliance with the emission limitations in section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - a. Emission Limitation: 54.7 tons PE per rolling 365-day period

Applicable Compliance Method: Compliance with the rolling 365-day emission limitation shall be

**Johns**

**PTI A**

**Issued: To be entered upon final issuance**

Emissions Unit ID: P047

demonstrated by the record keeping requirements specified in section A.III.2.

b. Emission Limitation: 0.70 lb PE/hr, 2.94 tons PE/yr

Applicable Compliance Method:  
The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum

**Johns**

**PTI A**

**Issued: To be entered upon final issuance**

Emissions Unit ID: P047

um  
process  
rate as  
indicat  
ed in  
the  
permit  
applica  
tion by  
an  
emissio  
n  
factor  
derived  
from  
stack  
testing  
of a  
similar  
emissio  
ns unit.  
If  
require  
d, the  
permitt  
ee shall  
demon  
strate  
compli  
ance by  
testing  
in  
accord  
ance  
with  
Metho  
d 5, of  
40  
CFR  
60,  
Appen

**Johns**

**PTI A**

**Issued: To be entered upon final issuance**

Emissions Unit ID: P047

dix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8,400 hours/yr, which is an inherent limitation due to the hours restriction on emissions unit P048-P050, and

Johns

PTI A

Issued: To be entered upon final issuance

Emissions Unit ID: P047

dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

c. Emission Limitation: 0% opacity as a 6-minute average

Applicable Compliance Method: Method 9 of 40 CFR Part 60,

33

**Johns**

**PTI A**

**Issued: To be entered upon final issuance**

Emissions Unit ID: P047

Appen  
dix A

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P047 - Line 89 Hot End Batch Melter w/three baghouses [Administrative modification of PTI 03-8472 issued March 15, 1995]		

**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

**Johns  
PTI A**

Emissions Unit ID: P048

**Issued: To be entered upon final issuance**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	
P048 - Line 89 Collection Module A w/venturi scrubber [Administrative modification of PTI 03-8472 issued March 15, 1995]	OAC rule 3745-31-05(D)	40 <u>CFR</u> Part 60 Subpart PPP
		OAC rule 3745-21-07(G)
		OAC rule 3745-17-11(B)
	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A)

**Johns****PTI A**

Emissions Unit ID: P048

**Issued: To be entered upon final issuance**

Applicable Emissions Limitations/Control Measures	See A.I.2.e See A.I.2.f
54.7 tons particulate emissions (PE) per rolling 365-day period (see A.I.2.a)	
4.62 tons nitrogen oxide (NO <sub>x</sub> )/yr (see A.I.2.a)	
The requirements of this rule also include compliance with 40 CFR Part 60 Subpart PPP and OAC rule 3745-17-07(A).	
Use of venturi scrubber (see A.I.2.b)	
6.90 lbs PE/hr, 28.98 tons PE/yr (see A.I.2.c)	
1.10 lbs NO <sub>x</sub> /hr, 4.62 tons NO <sub>x</sub> /yr	
1.66 lbs organic compounds (OC)/hr, 6.97 tons OC/yr	
1.75 lbs carbon monoxide (CO)/hr, 7.35 tons CO/yr	
0.54 lb formaldehyde/hr, 2.27 tons formaldehyde/yr	
0.55 lb phenol/hr, 2.31 tons phenol/yr	
See A.I.2.d	
None (see A.II.1)	

Issued: To be entered upon final issuance

2.

**Additional Terms and Conditions**

- 2.a The permittee has requested a federally enforceable restriction of 54.7 tons PE per rolling 365-day period for purposes of avoiding PSD (see A.II.3). The permittee has also requested a federally enforceable restriction of 4.62 tons NOx per year based on an annual operating hours restriction (see A.II.2).

Issued: To be entered upon final issuance

- 2.b** "Best Available Technology" (BAT) for this emissions unit has been determined to be the use of a venturi scrubber.
- 2.c** All PE is assumed to be in the form of PM<sub>10</sub>.
- 2.d** The permittee shall not cause to be discharged into the atmosphere from this emissions unit, any gases which contain particulate matter in excess of 5.5 kg/Mg (11.0 lb/ton) of glass pulled.
- 2.e** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

**Johns****PTI A**

Emissions Unit ID: P048

**Issued: To be entered upon final issuance**

- 2.f** Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

**II. Operational Restrictions**

1. The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).
2. The maximum annual operating hours for this emissions unit shall not exceed 8,400 hours, based upon a rolling, 12-month summation of the monthly operating hours.

To ensure enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the following hourly limits specified in the following table:

	<u>Month(s)</u>
	1
	1-2
	1-3
	1-4
	1-5
	1-6
	1-7
1-8	1-9
	1-10
	1-11
	1-12

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual hours limitation shall be based upon a rolling 12-month summation of hours of operation.

3. Combined annual PE from Line 89, which include emissions units: P047, P048, P049, P050, P051 and P052, shall not exceed 54.7 tons/yr based upon a rolling, 365-day summation.

To ensure enforceability during the first 12 calendar months of operation, under the provisions of this permit, the permittee shall not exceed the emission levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Emissions of PE (Tons)</u>
1	
1-2	4.56
1-3	9.12
1-4	13.7
1-5	18.2
1-6	22.8
1-7	27.4
1-8	31.9
1-9	36.5
1-10	41.0
1-11	45.6
1-12	50.2
	54.7

After the first 12 calendar months of operation, under the provisions of this permit, compliance with the annual emission limitation for PE shall be based upon a rolling, 365-day summation of the daily emissions.

4. The pressure drop across the scrubber shall be continuously maintained at a value of not less than 10 inches of water at all times while the emissions unit is in operation.
5. The scrubber water flow rate shall be continuously maintained at a value of not less than 440 gallons per minute at all times while the emissions unit is in operation.

### **III. Monitoring and/or Recordkeeping Requirements**

1. The owner or operator subject to the provisions of 40 CFR Part 60 Subpart PPP who uses a wet scrubbing control device to comply with the mass emission standard shall install, calibrate, maintain, and operate monitoring devices that measure the gas pressure drop across each scrubber and the scrubbing liquid flow rate to each scrubber. The pressure drop monitor is to be certified by its manufacturer to be accurate within  $\pm 250$  Pascal ( $\pm 1$  inch water gauge) over its operating range, and the flow rate monitor is to be certified by its manufacturer to be accurate within  $\pm 5$  percent over its operating range.
2. All monitoring devices required under 40 CFR Part 60 Subpart PPP are to be recalibrated quarterly in accordance with procedures under section 60.13(b).

**Issued: To be entered upon final issuance**

3. The permittee shall collect and record the following information each day:
  - a. the pressure drop across the scrubber, in inches of water, at least once every 4 hours;
  - b. the scrubber water flow rate, in gallons per minute, at least once every 4 hours; and
  - c. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. The permittee shall maintain monthly records of the following information:
  - a. the operating hours for each month;
  - b. for the first 12-months of operation under the provisions of this permit, the cumulative monthly hours of operation; and
  - c. after the first 12-months of operation under the provisions of this permit, the rolling 12-month summation of operating hours.
5. The permittee shall maintain daily records of the following information for Line 89 (emissions units P047, P048, P049, P050, P051 and P052):
  - a. the calculated PE rate, in pounds per day;
  - b. for the first 12-months of operation under the provisions of this permit, the cumulative daily PE rate, in tons; and
  - c. after the first 12-months of operation under the provisions of this permit, the annual PE rate, in tons, based on a rolling, 365-day summation of the daily PE rate.
6. 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**

**Issued: To be entered upon final issuance**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.

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

2. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
  - a. for the first 12 calendar months of operation, under the provisions of this permit, all exceedance of the allowable cumulative hours of operation; and
  - b. after the first 12 calendar months of operation, under the provisions of this permit, all exceedances of the rolling, 12-month operating hours limitation.

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

3. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
  - a. for the first 12-calendar months of operation, under the provisions of this permit, all exceedances of the allowable cumulative PE levels; and
  - b. after the first 12-calendar months of operation, under the provisions of this permit, all exceedances of the rolling, 365-day PE limitation.

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

4. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of photochemically reactive material. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

**V. Testing Requirements**

1. Emissions Testing: The permittee shall conduct, or have conducted, emissions testing in accordance with the following requirements:
  - a. The emissions testing shall be conducted within 6 months after start-up of this emissions unit or emissions unit P049.
  - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE, OC, NO<sub>x</sub>, CO, formaldehyde, phenol and the NSPS standard for particulate matter.
  - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates and NSPS standard:
    - i. PE, Method 5 of 40 CFR Part 60, Appendix A. (including the back half of the sampling train)
    - ii. NSPS particulate matter standard, Method 5E of 40 CFR Part 60, Appendix A
    - iii. OC, Method 18, 25 and/or 25A of 40 CFR Part 60, Appendix A.
    - iv. NO<sub>x</sub>, Method 7 of 40 CFR Part 60, Appendix A.
    - v. CO, Method 10 of 40 CFR Part 60, Appendix A.
    - vi. formaldehyde, Method 316 or 318 of 40 CFR Part 63, Appendix A.
    - vii. phenol, USEPA Conditional Test Method 032 or other test method approved by the Administrator.
  - d. The test shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Director or appropriate Ohio EPA District Office or local air agency.

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

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee shall include in the report the operating parameters as required in (V)(1)(c) above.

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

- a. Emission Limitation: 54.7 tons PE per rolling 365-day period

Applicable Compliance Method: Compliance with the rolling 365-day emission limitation shall be demonstrated by the recordkeeping requirements specified in section A.III.5.

- b. Emission Limitation: 6.9 lbs PE/hr, 28.98 tons PE/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8400 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- c. Emission Limitation: 1.66 lbs OC/hr, 6.97 tons OC/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8400 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- d. Emission Limitation: 1.10 lbs NO<sub>x</sub>/hr, 4.62 tons NO<sub>x</sub>/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8400 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- e. Emission Limitation: 1.75 lbs CO/hr, 7.35 tons CO/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be

Emissions Unit ID: P048

determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8400 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- f. Emission Limitation: 0.54 lb formaldehyde/hr, 2.27 tons formaldehyde/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8400 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- g. Emission Limitation: 0.55 lb phenol/hr, 2.31 tons phenol/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8400 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- h. Emission Limitation: 20% opacity as a 6-minute average

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

- i. Emission Limitation: 11.0 lbs particulate matter/ton of glass pulled (5.5 kg/Mg)

Applicable Compliance Method: Compliance with the limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

## VI. Miscellaneous Requirements

None

**Johns  
PTI A**

Emissions Unit ID: P048

**Issued: To be entered upon final issuance**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P048 - Line 89 Collection Module A w/venturi scrubber [Administrative modification of PTI 03-8472 issued March 15, 1995]		

**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**

47

**Johns Manville International Inc. Plt08**

**PTI Application: 03 08472**

**Issued**

**Facility ID: 0320010005**

Emissions Unit ID: P048

None

**Johns  
PTI A**

Emissions Unit ID: P049

**Issued: To be entered upon final issuance**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	
P049 - Line 89 Collection Module B w/venturi scrubber [Administrative modification of PTI 03-8472 issued March 15, 1995]	OAC rule 3745-31-05(D)	40 <u>CFR</u> Part 60 Subpart PPP
		OAC rule 3745-21-07(G)
		OAC rule 3745-17-11(B)
	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A)

**Johns****PTI A**

Emissions Unit ID: P049

**Issued: To be entered upon final issuance**

Applicable Emissions Limitations/Control Measures	See A.I.2.e See A.I.2.f
54.7 tons particulate emissions (PE) per rolling 365-day period (see A.I.2.a)	
4.62 tons nitrogen oxide (NO <sub>x</sub> )/yr (see A.I.2.a)	
The requirements of this rule also include compliance with 40 CFR Part 60 Subpart PPP and OAC rule 3745-17-07(A).	
Use of venturi scrubber (see A.I.2.b)	
6.20 lbs PE/hr, 26.04 tons PE/yr (see A.I.2.c)	
1.10 lbs NO <sub>x</sub> /hr, 4.62 tons NO <sub>x</sub> /yr	
1.66 lbs organic compounds (OC)/hr, 6.97 tons OC/yr	
1.75 lbs carbon monoxide (CO)/hr, 7.35 tons CO/yr	
0.54 lb formaldehyde/hr, 2.27 tons formaldehyde/yr	
0.55 lb phenol/hr, 2.31 tons phenol/yr	
See A.I.2.d	
None (see A.II.1)	

**Issued: To be entered upon final issuance****2. Additional Terms and Conditions**

- 2.a** The permittee has requested a federally enforceable restriction of 54.7 tons PE per rolling 365-day period for purposes of avoiding PSD (see A.II.3). The permittee has also requested a federally enforceable restriction of 4.62 tons NO<sub>x</sub> per year based on an annual operating hours restriction (see A.II.2).
- 2.b** "Best Available Technology" (BAT) for this emissions unit has been determined to be the use of a venturi scrubber.
- 2.c** All PE is assumed to be in the form of PM<sub>10</sub>.
- 2.d** The permittee shall not cause to be discharged into the atmosphere from this emissions unit, any gases which contain particulate matter in excess of 5.5 kg/Mg (11.0 lb/ton) of glass pulled.
- 2.e** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.f** Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

**II. Operational Restrictions**

- The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).
- The maximum annual operating hours for this emissions unit shall not exceed 8,400 hours, based upon a rolling, 12-month summation of the monthly operating hours.

To ensure enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the following hourly limits specified in the following table:

<u>Month(s)</u>	<u>1-7</u>
1	<u>Maximum Allowable</u>
1-2	<u>Cumulative Operating Hours</u>
1-3	1,000
1-4	2,000
1-5	2,800
1-6	3,600

**Issued**

	Emissions Unit ID: P049
4,300	6,200
5,000	6,800
5,600	7,400
1-8	7,900
1-9	8,400
1-10	
1-11	
1-12	

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual hours limitation shall be based upon a rolling 12-month summation of hours of operation.

3. Combined annual PE from Line 89, which include emissions units: P047, P048, P049, P050, P051 and P052, shall not exceed 54.7 tons/yr based upon a rolling, 365-day summation.

To ensure enforceability during the first 12 calendar months of operation, under the provisions of this permit, the permittee shall not exceed the emission levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Emissions of PE (Tons)</u>
1	4.56
1-2	9.12
1-3	13.7
1-4	18.2
1-5	22.8
1-6	27.4
1-7	31.9
1-8	36.5
1-9	41.0
1-10	45.6
1-11	50.2
1-12	54.7

After the first 12 calendar months of operation, under the provisions of this permit, compliance with the annual emission limitation for PE shall be based upon a rolling, 365-day summation of the daily emissions.

4. The pressure drop across the scrubber shall be continuously maintained at a value of not less than 9.5 inches of water at all times while the emissions unit is in operation.
5. The scrubber water flow rate shall be continuously maintained at a value of not less than 370 gallons per minute at all times while the emissions unit is in operation.

52

**Johns**

**PTI A**

**Issued: To be entered upon final issuance**

Emissions Unit ID: P049

Issued: To be entered upon final issuance

### III. Monitoring and/or Recordkeeping Requirements

1. The owner or operator subject to the provisions of 40 CFR Part 60 Subpart PPP who uses a wet scrubbing control device to comply with the mass emission standard shall install, calibrate, maintain, and operate monitoring devices that measure the gas pressure drop across each scrubber and the scrubbing liquid flow rate to each scrubber. The pressure drop monitor is to be certified by its manufacturer to be accurate within  $\pm 250$  Pascal ( $\pm 1$  inch water gauge) over its operating range, and the flow rate monitor is to be certified by its manufacturer to be accurate within  $\pm 5$  percent over its operating range.
2. All monitoring devices required under 40 CFR Part 60 Subpart PPP are to be recalibrated quarterly in accordance with procedures under section 60.13(b).
3. The permittee shall collect and record the following information each day:
  - a. the pressure drop across the scrubber, in inches of water, at least once every 4 hours;
  - b. the scrubber water flow rate, in gallons per minute, at least once every 4 hours; and
  - c. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. The permittee shall maintain monthly records of the following information:
  - a. the operating hours for each month;
  - b. for the first 12-months of operation under the provisions of this permit, the cumulative monthly hours of operation; and
  - c. after the first 12-months of operation under the provisions of this permit, the rolling 12-month summation of operating hours.
5. The permittee shall maintain daily records of the following information for Line 89 (emissions units P047, P048, P049, P050, P051 and P052):
  - a. the calculated PE rate, in pounds per day;
  - b. for the first 12-months of operation under the provisions of this permit, the cumulative daily PE rate, in tons; and

**Issued: To be entered upon final issuance**

- c. after the first 12-months of operation under the provisions of this permit, the annual PE rate, in tons, based on a rolling, 365-day summation of the daily PE rate.
6. 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 deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.

These deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.
2. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
  - a. for the first 12 calendar months of operation, under the provisions of this permit, all exceedance of the allowable cumulative hours of operation; and
  - b. after the first 12 calendar months of operation, under the provisions of this permit, all exceedances of the rolling, 12-month operating hours limitation.

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

3. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
  - a. for the first 12-calendar months of operation, under the provisions of this permit, all exceedances of the allowable cumulative PE levels; and

Emissions Unit ID: P049

- b. after the first 12-calendar months of operation, under the provisions of this permit, all exceedances of the rolling, 365-day PE limitation.

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

- 4. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of photochemically reactive material. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

## V. Testing Requirements

- 1. Emissions Testing: The permittee shall conduct, or have conducted, emissions testing in accordance with the following requirements:
  - a. The emissions testing shall be conducted within 6 months after start-up of this emissions unit or emissions unit P049.
  - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE, OC, NO<sub>x</sub>, CO, formaldehyde, phenol and the NSPS standard for particulate matter.
  - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates and NSPS standard:
    - i. PE, Method 5 of 40 CFR Part 60, Appendix A. (including the back half of the sampling train)
    - ii. NSPS particulate matter standard, Method 5E of 40 CFR Part 60, Appendix A
    - iii. OC, Method 18, 25 and/or 25A of 40 CFR Part 60, Appendix A.
    - iv. NO<sub>x</sub>, Method 7 of 40 CFR Part 60, Appendix A.
    - v. CO, Method 10 of 40 CFR Part 60, Appendix A.
    - vi. formaldehyde, Method 316 or 318 of 40 CFR Part 63, Appendix A.
    - vii. phenol, USEPA Conditional Test Method 032 or other test method approved by the Administrator.
  - d. The test shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Director or appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit and "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

**Issued: To be entered upon final issuance**

test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee shall include in the report the operating parameters as required in (V)(1)(c) above.

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

- a. Emission Limitation: 54.7 tons PE per rolling 365-day period

Applicable Compliance Method: Compliance with the rolling 365-day emission limitation shall be demonstrated by the recordkeeping requirements specified in section A.III.5.

- b. Emission Limitation: 6.2 lbs PE/hr, 26.04 tons PE/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8400 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- c. Emission Limitation: 1.66 lbs OC/hr, 6.97 tons OC/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8400 hours/yr and dividing by 2000 lbs/ton. Therefore,

Emissions Unit ID: P049

provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- d. Emission Limitation: 1.10 lbs NO<sub>x</sub>/hr, 4.62 tons NO<sub>x</sub>/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8400 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- e. Emission Limitation: 1.75 lbs CO/hr, 7.35 tons CO/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8400 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- f. Emission Limitation: 0.54 lb formaldehyde/hr, 2.27 tons formaldehyde/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8400 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- g. Emission Limitation: 0.55 lb phenol/hr, 2.31 tons phenol/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8400 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

**Issued: To be entered upon final issuance**

- h. Emission Limitation: 20% opacity as a 6-minute average  
Applicable Compliance Method: OAC rule 3745-17-03(B)(1)
  
- i. Emission Limitation: 11.0 lbs particulate matter/ton of glass pulled (5.5 kg/Mg)  
Applicable Compliance Method: Compliance with the limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

**VI. Miscellaneous Requirements**

None

**Johns****PTI A**

Emissions Unit ID: P049

**Issued: To be entered upon final issuance****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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P048 - Line 89 Collection Module B w/venturi scrubber [Administrative modification of PTI 03-8472 issued March 15, 1995]		

**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**

60

**Johns Manville International Inc. Plt08**

**PTI Application: 02 08472**

**Issued**

**Facility ID: 0320010005**

Emissions Unit ID: P049

None

**Johns****PTI A**

Emissions Unit ID: P050

**Issued: To be entered upon final issuance****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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	
P050 - Line 89 Collection Module C w/venturi scrubber [Administrative modification of PTI 03-8472 issued March 15, 1995]	OAC rule 3745-31-05(D)	40 <u>CFR</u> Part 60 Subpart PPP
		OAC rule 3745-21-07(G)
		OAC rule 3745-17-11(B)
	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A)

**Johns****PTI A**

Emissions Unit ID: P050

**Issued: To be entered upon final issuance**

Applicable Emissions Limitations/Control Measures	See A.I.2.e See A.I.2.f
54.7 tons particulate emissions (PE) per rolling 365-day period (see A.I.2.a)	
4.62 tons nitrogen oxide NO <sub>x</sub> /yr (see A.I.2.a)	
The requirements of this rule also include compliance with 40 CFR Part 60 Subpart PPP and OAC rule 3745-17-07(A).	
Use of venturi scrubber (see A.I.2.b)	
4.50 lbs PE/hr, 18.90 tons PE/yr (see A.I.2.c)	
1.10 lbs NO <sub>x</sub> /hr, 4.62 tons NO <sub>x</sub> /yr	
1.66 lbs organic compounds (OC)/hr, 6.97 tons OC/yr	
1.75 lbs carbon monoxide (CO)/hr, 7.35 tons CO/yr	
0.54 lb formaldehyde/hr, 2.27 tons formaldehyde/yr	
0.55 lb phenol/hr, 2.31 tons phenol/yr	
See A.I.2.d	
None (see A.II.1)	

**Issued: To be entered upon final issuance****2. Additional Terms and Conditions**

- 2.a** The permittee has requested a federally enforceable restriction of 54.7 tons PE per rolling 365-day period for purposes of avoiding PSD (see A.II.3). The permittee has also requested a federally enforceable restriction of 4.62 tons NO<sub>x</sub> per year based on an annual operating hours restriction (see A.II.2).
- 2.b** "Best Available Technology" (BAT) for this emissions unit has been determined to be the use of a venturi scrubber.
- 2.c** All PE is assumed to be in the form of PM<sub>10</sub>.
- 2.d** The permittee shall not cause to be discharged into the atmosphere from this emissions unit, any gases which contain particulate matter in excess of 5.5 kg/Mg (11.0 lb/ton) of glass pulled.
- 2.e** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.f** Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

**II. Operational Restrictions**

- The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).
- The maximum annual operating hours for this emissions unit shall not exceed 8,400 hours, based upon a rolling, 12-month summation of the monthly operating hours.

To ensure enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the following hourly limits specified in the following table:

<u>Month(s)</u>	<u>1-7</u>
1	<u>Maximum Allowable</u>
1-2	<u>Cumulative Operating Hours</u>
1-3	1,000
1-4	2,000
1-5	2,800
1-6	3,600

**Johns Manville International Inc. Plt08**

**PTI Application: 03 08472**

**Issued**

**Facility ID: 0320010005**

	Emissions Unit ID: P050
4,300	6,200
5,000	6,800
5,600	7,400
1-8	7,900
1-9	8,400
1-10	
1-11	
1-12	

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual hours limitation shall be based upon a rolling 12-month summation of hours of operation.

3. Combined annual PE from Line 89, which include emissions units: P047, P048, P049, P050, P051 and P052, shall not exceed 54.7 tons/yr based upon a rolling, 365-day summation.

To ensure enforceability during the first 12 calendar months of operation, under the provisions of this permit, the permittee shall not exceed the emission levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Emissions of PE (Tons)</u>
1	4.56
1-2	9.12
1-3	13.7
1-4	18.2
1-5	22.8
1-6	27.4
1-7	31.9
1-8	36.5
1-9	41.0
1-10	45.6
1-11	50.2
1-12	54.7

After the first 12 calendar months of operation, under the provisions of this permit, compliance with the annual emission limitation for PE shall be based upon a rolling, 365-day summation of the daily emissions.

4. The pressure drop across the scrubber shall be continuously maintained at a value of not less than 9.5 inches of water at all times while the emissions unit is in operation.
5. The scrubber water flow rate shall be continuously maintained at a value of not less than 270 gallons per minute at all times while the emissions unit is in operation.

65

**Johns**

**PTI A**

**Issued: To be entered upon final issuance**

Emissions Unit ID: P050

Issued: To be entered upon final issuance

### III. Monitoring and/or Recordkeeping Requirements

1. The owner or operator subject to the provisions of 40 CFR Part 60 Subpart PPP who uses a wet scrubbing control device to comply with the mass emission standard shall install, calibrate, maintain, and operate monitoring devices that measure the gas pressure drop across each scrubber and the scrubbing liquid flow rate to each scrubber. The pressure drop monitor is to be certified by its manufacturer to be accurate within  $\pm 250$  Pascal ( $\pm 1$  inch water gauge) over its operating range, and the flow rate monitor is to be certified by its manufacturer to be accurate within  $\pm 5$  percent over its operating range.
2. All monitoring devices required under 40 CFR Part 60 Subpart PPP are to be recalibrated quarterly in accordance with procedures under section 60.13(b).
3. The permittee shall collect and record the following information each day:
  - a. the pressure drop across the scrubber, in inches of water, at least once every 4 hours;
  - b. the scrubber water flow rate, in gallons per minute, at least once every 4 hours; and
  - c. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. The permittee shall maintain monthly records of the following information:
  - a. the operating hours for each month;
  - b. for the first 12-months of operation under the provisions of this permit, the cumulative monthly hours of operation; and
  - c. after the first 12-months of operation under the provisions of this permit, the rolling 12-month summation of operating hours.
5. The permittee shall maintain daily records of the following information for Line 89 (emissions units P047, P048, P049, P050, P051 and P052):
  - a. the calculated PE rate, in pounds per day;
  - b. for the first 12-months of operation under the provisions of this permit, the cumulative daily PE rate, in tons; and

**Issued: To be entered upon final issuance**

- c. after the first 12-months of operation under the provisions of this permit, the annual PE rate, in tons, based on a rolling, 365-day summation of the daily PE rate.
6. 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 deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.

These deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.
2. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
  - a. for the first 12 calendar months of operation, under the provisions of this permit, all exceedance of the allowable cumulative hours of operation; and
  - b. after the first 12 calendar months of operation, under the provisions of this permit, all exceedances of the rolling, 12-month operating hours limitation.

These deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.
3. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
  - a. for the first 12-calendar months of operation, under the provisions of this permit, all exceedances of the allowable cumulative PE levels; and

Emissions Unit ID: P050

- b. after the first 12-calendar months of operation, under the provisions of this permit, all exceedances of the rolling, 365-day PE limitation.

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

- 4. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of photochemically reactive material. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

## V. Testing Requirements

- 1. Emissions Testing: The permittee shall conduct, or have conducted, emissions testing in accordance with the following requirements:
  - a. The emissions testing shall be conducted within 6 months after start-up of this emissions unit or emissions unit P050.
  - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE, OC, NO<sub>x</sub>, CO, formaldehyde, phenol and the NSPS standard for particulate matter.
  - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates and NSPS standard:
    - i. PE, Method 5 of 40 CFR Part 60, Appendix A. (including the back half of the sampling train)
    - ii. NSPS particulate matter standard, Method 5E of 40 CFR Part 60, Appendix A
    - iii. OC, Method 18, 25 and/or 25A of 40 CFR Part 60, Appendix A.
    - iv. NO<sub>x</sub>, Method 7 of 40 CFR Part 60, Appendix A.
    - v. CO, Method 10 of 40 CFR Part 60, Appendix A.
    - vi. formaldehyde, Method 316 or 318 of 40 CFR Part 63, Appendix A.
    - vii. phenol, USEPA Conditional Test Method 032 or other test method approved by the Administrator.
  - d. The test shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Director or appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit and "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

**Issued: To be entered upon final issuance**

test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee shall include in the report the operating parameters as required in (V)(1)(c) above.

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

- a. Emission Limitation: 54.7 tons PE per rolling 365-day period

Applicable Compliance Method: Compliance with the rolling 365-day emission limitation shall be demonstrated by the recordkeeping requirements specified in section A.III.5.

- b. Emission Limitation: 4.5 lbs PE/hr, 18.90 tons PE/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8400 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- c. Emission Limitation: 1.66 lbs OC/hr, 6.97 tons OC/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8400 hours/yr and dividing by 2000 lbs/ton. Therefore,

Emissions Unit ID: P050

provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- d. Emission Limitation: 1.10 lbs NO<sub>x</sub>/hr, 4.62 tons NO<sub>x</sub>/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8400 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- e. Emission Limitation: 1.75 lbs CO/hr, 7.35 tons CO/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8400 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- f. Emission Limitation: 0.54 lb formaldehyde/hr, 2.27 tons formaldehyde/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8400 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- g. Emission Limitation: 0.55 lb phenol/hr, 2.31 tons phenol/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8400 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

**Issued: To be entered upon final issuance**

h. Emission Limitation: 20% opacity as a 6-minute average

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

i. Emission Limitation: 11.0 lbs particulate matter/ton of glass pulled (5.5 kg/Mg)

Applicable Compliance Method: Compliance with the limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

**VI. Miscellaneous Requirements**

None

**Johns****PTI A**

Emissions Unit ID: P050

**Issued: To be entered upon final issuance****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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P050 - Line 89 Collection Module C w/venturi scrubber [Administrative modification of PTI 03-8472 issued March 15, 1995]		

**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**

73

**Johns Manville International Inc. Plt08**

**PTI Application: 03 08472**

**Issued**

**Facility ID: 0320010005**

Emissions Unit ID: P050

None

Johns

PTI A

Emissions Unit ID: P051

**Issued: To be entered upon final issuance****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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	40 <u>CFR</u> Part 60 Subpart PPP
P051 - Line 89 Curing Oven w/thermal oxidizer [Administrative modification of PTI 03-8472 issued March 15, 1995]	OAC rule 3745-31-05(D)	OAC rule 3745-21-07(G)
		OAC rule 3745-17-11(B)
		OAC rule 3745-17-07(A)
	OAC rule 3745-31-05(A)(3)	

**Johns****PTI A**

Emissions Unit ID: P051

**Issued: To be entered upon final issuance**

Applicable Emissions Limitations/Control Measures	See A.I.2.e See A.I.2.f
54.7 tons particulate emissions (PE) per rolling 365-day period (see A.I.2.a)	
24.08 tons nitrogen oxide (NO <sub>x</sub> )/yr (see A.I.2.a)	
The requirements of this rule also include compliance with 40 CFR Part 60 Subpart PPP and OAC rule 3745-17-07(A).	
Use of thermal oxidizer (see A.I.2.b)	
0.45 lb PE/hr, 1.8 tons PE/yr (see A.I.2.c)	
6.02 lbs NO <sub>x</sub> /hr, 24.08 tons NO <sub>x</sub> /yr	
0.63 lb organic compounds (OC)/hr, 2.52 tons OC/yr	
12.0 lbs carbon monoxide (CO)/hr, 48.0 tons CO/yr	
0.2 lb formaldehyde/hr, 0.8 tons formaldehyde/yr	
0.25 lb phenol/hr, 1.0 tons phenol/yr	
See A.I.2.d	
None (see A.II.1)	

**Issued: To be entered upon final issuance****2. Additional Terms and Conditions**

- 2.a** The permittee has requested a federally enforceable restriction of 54.7 tons PE per rolling 365-day period for purposes of avoiding PSD (see A.II.3). The permittee has also requested a federally enforceable restriction of 24.08 tons NO<sub>x</sub> per year based on an annual operating hours restriction (see A.II.2).
- 2.b** "Best Available Technology" (BAT) for this emissions unit has been determined to be the use of a thermal oxidizer.
- 2.c** All PE is assumed to be in the form of PM<sub>10</sub>.
- 2.d** The permittee shall not cause to be discharged into the atmosphere from this emissions unit, any gases which contain particulate matter in excess of 5.5 kg/Mg (11.0 lb/ton) of glass pulled.
- 2.e** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.f** Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

**II. Operational Restrictions**

1. The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).
2. The maximum annual operating hours for this emissions unit shall not exceed 8,000 hours, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation, under the provisions of this permit, the permittee shall not exceed the following hourly limits specified in the following table:

<u>Month(s)</u>	<u>1-7</u>
1	<u>Maximum Allowable</u>
1-2	<u>Cumulative Operating Hours</u>
1-3	750
1-4	1,500
1-5	2,250
1-6	3,000

**Johns Manville International Inc. Plt08**

**PTI Application: 03 08472**

**Issued**

**Facility ID: 0320010005**

	Emissions Unit ID: P051
3,750	6,000
4,500	6,750
5,250	7,500
1-8	7,800
1-9	8,000
1-10	
1-11	
1-12	

After the first 12 calendar months of operation, under the provisions of this permit, compliance with the annual hours limitation shall be based upon a rolling 12-month summation of hours of operation.

3. Combined annual PE from Line 89, which include emissions units: P047, P048, P049, P050, P051 and P052, shall not exceed 54.7 tons/yr based upon a rolling, 365-day summation.

To ensure enforceability during the first 12 calendar months of operation, under the provisions of this permit the permittee shall not exceed the emission levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Emissions of PE (Tons)</u>
1	4.56
1-2	9.12
1-3	13.7
1-4	18.2
1-5	22.8
1-6	27.4
1-7	31.9
1-8	36.5
1-9	41.0
1-10	45.6
1-11	50.2
1-12	54.7

After the first 12 calendar months of operation, under the provisions of this permit, compliance with the annual emission limitation for PE shall be based upon a rolling, 12-month summation of the monthly emissions.

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

Issued: To be entered upon final issuance

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
2. The permittee shall collect and record the following information each day:
  - a. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, shall not be less than 1550 degrees Fahrenheit as measured at the bed center thermocouple.
  - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
3. The permittee shall maintain monthly records of the following information:
  - a. the operating hours for each month;
  - b. for the first 12-months of operation under the provisions of this permit, the cumulative monthly hours of operation; and
  - c. after the first 12-months of operation under the provisions of this permit, the rolling 12-month summation of operating hours.
4. The permittee shall maintain daily records of the following information for Line 89 (emissions units P047, P048, P049, P050, P051 and P052):
  - a. the calculated PE rate, in pounds per day;
  - b. for the first 12-months of operation, under the provisions of this permit, the cumulative daily PE rate, in tons; and
  - c. after the first 12-months of operation, under the provisions of this permit, the annual PE rate, in tons, based on a rolling, 365-day summation of the daily PE rate.
5. The permittee shall maintain records of the following information for this emissions unit:

**Issued: To be entered upon final issuance**

- 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 deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator does not comply with the temperature limitation specified above. These deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.
2. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
  - a. for the first 12 calendar months of operation, under the provisions of this permit, all exceedance of the allowable cumulative hours of operation; and
  - b. after the first 12 calendar months of operation, under the provisions of this permit, all exceedances of the rolling, 12-month operating hours limitation.

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

3. The permittee shall submit deviation (excursion) reports which identify exceedance of any of the following:
  - a. for the first 12-calendar months of operation, under the provisions of this permit, all exceedances of the allowable cumulative PE levels; and
  - b. after the first 12-calendar months of operation, under the provisions of this permit, all exceedances of the rolling, 365-day PE limitation.

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

4. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of photochemically reactive material. The notification shall include a copy of such record and shall be sent to the Director (the

Emissions Unit ID: P051

appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

## V. Testing Requirements

1. Emissions Testing: The permittee shall conduct, or have conducted, emissions testing in accordance with the following requirements:
  - a. The emissions testing shall be conducted within 6 months after start-up of this emissions unit.
  - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE, OC, NO<sub>x</sub>, CO, formaldehyde, phenol and the NSPS standard for particulate matter.
  - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates and NSPS standard:
    - i. PE, Method 5 of 40 CFR Part 60, Appendix A. (including the back half of the sampling train)
    - ii. NSPS particulate matter standard, Method 5E of 40 CFR Part 60, Appendix A
    - iii. OC, Method 18, 25 and/or 25A of 40 CFR Part 60, Appendix A.
    - iv. NO<sub>x</sub>, Method 7 of 40 CFR Part 60, Appendix A.
    - v. CO, Method 10 of 40 CFR Part 60, Appendix A.
    - vi. formaldehyde, Method 316 or 318 of 40 CFR Part 63, Appendix A.
    - vii. phenol, USEPA Conditional Test Method 032 or other test method approved by the Administrator.
  - d. The test shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Director or appropriate Ohio EPA District Office or local air agency.

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

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the

**Issued: To be entered upon final issuance**

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 shall include in the report the operating parameters as required in (V)(1)(c) above.

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

- a. Emission Limitation: 54.7 tons PE per rolling 365-day period

Applicable Compliance Method: Compliance with the rolling 365-day emission limitation shall be demonstrated by the recordkeeping requirements specified in section A.III.5.

- b. Emission Limitation: 0.45 lb PE/hr, 1.8 tons PE/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8000 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- c. Emission Limitation: 0.63 lb OC/hr, 2.52 tons OC/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8000 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- d. Emission Limitation: 6.02 lbs NO<sub>x</sub>/hr, 24.08 tons NO<sub>x</sub>/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

Emissions Unit ID: P051

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8000 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- e. Emission Limitation: 12.0 lbs CO/hr, 48.0 tons CO/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8000 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- f. Emission Limitation: 0.2 lb formaldehyde/hr, 0.8 ton formaldehyde/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8000 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- g. Emission Limitation: 0.25 lb phenol/hr, 1.0 tons phenol/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8000 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- h. Emission Limitation: 20% opacity as a 6-minute average

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

- i. Emission Limitation: 11.0 lbs particulate matter/ton of glass pulled (5.5 kg/Mg)

Applicable Compliance Method: Compliance with the limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

83

**Johns**

**PTI A**

**Issued: To be entered upon final issuance**

Emissions Unit ID: P051

**VI. Miscellaneous Requirements**

None

**Johns****PTI A**

Emissions Unit ID: P051

**Issued: To be entered upon final issuance****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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P051 - Line 89 Curing Oven w/thermal oxidizer [Administrative modification of PTI 03-8472 issued March 15, 1995]		

**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**

85

**Johns Manville International Inc. Plt08**

**PTI Application: 02 08472**

**Issued**

**Facility ID: 0320010005**

Emissions Unit ID: P051

None

Johns

PTI A

Emissions Unit ID: P052

**Issued: To be entered upon final issuance****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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P052 - Line 89 Cooling Table w/venturi scrubber	OAC rule 3745-31-05(D)	54.7 tons particulate emissions (PE) per rolling 365-day period (see A.I.2.a)
	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with 40 CFR Part 60 Subpart PPP and OAC rule 3745-17-07(A).
		Use of venturi scrubber (see A.I.2.b)
		0.6 lb PE/hr, 2.40 tons PE/yr (see A.I.2.c)
		1.66 lbs organic compounds (OC)/hr, 6.64 tons OC/yr
	40 <u>CFR</u> Part 60 Subpart PPP	See A.I.2.d
	OAC rule 3745-21-07(G)	None (see A.II.1)
	OAC rule 3745-17-11(B)	See A.I.2.e
OAC rule 3745-17-07(A)	See A.I.2.f	

**2. Additional Terms and Conditions**

- 2.a The permittee has requested a federally enforceable restriction of 54.7 tons PE per rolling 365-day period for purposes of avoiding PSD (see A.II.2).

**Issued: To be entered upon final issuance**

- 2.b** "Best Available Technology" (BAT) for this emissions unit has been determined to be the use of a venturi scrubber.
- 2.c** All PE is assumed to be in the form of PM<sub>10</sub>.
- 2.d** The permittee shall not cause to be discharged into the atmosphere from this emissions unit, any gases which contain particulate matter in excess of 5.5 kg/Mg (11.0 lb/ton) of glass pulled.
- 2.e** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.f** Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

**II. Operational Restrictions**

1. The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).
2. Combined annual PE from Line 89, which include emissions units: P047, P048, P049, P050, P051 and P052, shall not exceed 54.7 tons/yr based upon a rolling, 365-day summation.

To ensure enforceability during the first 12 calendar months of operation, under the provisions of this permit, the permittee shall not exceed the emission levels specified in the following table:

<u>Month(s)</u>	
1	1-11
1-2	1-12
1-3	
1-4	
1-5	
1-6	
1-7	
1-8	
1-9	
1-10	

Johns

PTI A

Emissions Unit ID: P052

**Issued: To be entered upon final issuance**

Maximum Allowable  
Cumulative Emissions  
of PE (Tons)

4.56  
9.12  
13.7  
18.2  
22.8  
27.4  
31.9  
36.5  
41.0  
45.6  
50.2  
54.7

After the first 12 calendar months of operation, under the provisions of this permit, compliance with the annual emission limitation for PE shall be based upon a rolling, 365-day summation of the daily emissions.

3. The pressure drop across the scrubber shall be continuously maintained at a value of not less than 8.5 inches of water at all times while the emissions unit is in operation.
4. The scrubber water flow rate shall be continuously maintained at a value of not less than 135 gallons per minute at all times while the emissions unit is in operation.

### III. Monitoring and/or Recordkeeping Requirements

1. The owner or operator subject to the provisions of 40 CFR Part 60 Subpart PPP who uses a wet scrubbing control device to comply with the mass emission standard shall install, calibrate, maintain, and operate monitoring devices that measure the gas pressure drop across each scrubber and the scrubbing liquid flow rate to each scrubber. The pressure drop monitor is to be certified by its manufacturer to be accurate within  $\pm 250$  Pascal ( $\pm 1$  inch water gauge) over its operating range, and the flow rate monitor is to be certified by its manufacturer to be accurate within  $\pm 5$  percent over its operating range.
2. All monitoring devices required under 40 CFR Part 60 Subpart PPP are to be recalibrated quarterly in accordance with procedures under section 60.13(b).
3. The permittee shall collect and record the following information each day:

- a. the pressure drop across the scrubber, in inches of water, at least once every 4 hours;
  - b. the scrubber water flow rate, in gallons per minute, at least once every 4 hours; and
  - c. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. The permittee shall maintain daily records of the following information for Line 89 (emissions units P047, P048, P049, P050, P051 and P052):
- a. the calculated PE rate, in pounds per day;
  - b. for the first 12-months of operation under the provisions of this permit, the cumulative daily PE rate, in tons; and
  - c. after the first 12-months of operation under the provisions of this permit, the annual PE rate, in tons, based on a rolling, 365-month summation of the daily PE rate.
5. The permittee shall maintain 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.

Issued: To be entered upon final issuance

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.

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

2. The permittee shall submit deviation (excursion) reports which identify exceedance of any of the following:
  - a. for the first 12-calendar months of operation, under the provisions of this permit, all exceedances of the allowable cumulative PE levels; and
  - b. after the first 12-calendar months of operation, under the provisions of this permit, all exceedances of the rolling, 365-day PE limitation.

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

3. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of photochemically reactive material. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

#### V. Testing Requirements

1. Emissions Testing: The permittee shall conduct, or have conducted, emissions testing in accordance with the following requirements:
  - a. The emissions testing shall be conducted within 6 months after operation under the provisions of this permit.
  - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE, OC and the NSPS standard for particulate matter.

**Issued: To be entered upon final issuance**

- c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rates and NSPS standard:
  - i. PE, Method 5 of 40 CFR Part 60, Appendix A. (including the back half of the sampling train)
  - ii. NSPS particulate matter standard, Method 5E of 40 CFR Part 60, Appendix A
  - iii. OC, Method 18, 25 and/or 25A of 40 CFR Part 60, Appendix A.
- d. The test shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Director or appropriate Ohio EPA District Office or local air agency.

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

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee shall include in the report the operating parameters as required in (V)(1)(c) above.

2. Compliance Methods Requirements Compliance with the emission limitations in section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - a. Emission Limitation: 54.7 tons PE per rolling 365-day period  
  
Applicable Compliance Method: Compliance with the rolling 365-day emission limitation shall be demonstrated by the recordkeeping requirements specified in section A.III.5.
  - b. Emission Limitation: 0.6 lb PE/hr, 2.4 tons PE/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8,000 hours/yr, which is an inherent limitation due to the hours restriction on emissions unit P051, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- c. Emission Limitation: 1.66 lbs OC/hr, 6.64 tons OC/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8,000 hours/yr, which is an inherent limitation due to the hours restriction on emissions unit P051, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- d. Emission Limitation: 20% opacity as a 6-minute average

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

- e. Emission Limitation: 11.0 lbs particulate matter/ton of glass pulled (5.5 kg/Mg)

Applicable Compliance Method: Compliance with the limitation shall be determined through testing required in section A.V.1 of the terms and conditions of this permit.

## V. Miscellaneous

None

**NEW SOURCE REVIEW FORM B**

PTI Number: 03-08472 Facility ID: 0320010005

FACILITY NAME Johns Manville International Inc. Plt08

FACILITY DESCRIPTION Modification (#1 of 2) of Line 89 to resolve notice of violation. CITY/TWP Defiance

SIC CODE 3296 SCC CODE 3-05-017-99 EMISSIONS UNIT ID P047

EMISSIONS UNIT DESCRIPTION Line 89 Hot End Batch Melter w/three baghouses

DATE INSTALLED 1995

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>	attainment	0.7	2.20	0.7	2.94
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY?

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES NO

IDENTIFY THE AIR CONTAMINANTS:

**NEW SOURCE REVIEW FORM B**

PTI Number: 03-08472 Facility ID: 0320010005

FACILITY NAME Johns Manville International Inc. Plt08

FACILITY DESCRIPTION Modification (#1 of 2) of Line 89 to CITY/TWP Defiance

Emissions Unit ID: P052

SIC CODE 3296 SCC CODE 3-05-017-99 EMISSIONS UNIT ID P048

EMISSIONS UNIT DESCRIPTION Line 89 Collection Module A w/venturi scrubber

DATE INSTALLED 1995

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>	attainment	4.60	19.40	6.90	28.98
Sulfur Dioxide					
Organic Compounds	attainment	1.58	6.62	1.66	6.97
Nitrogen Oxides	attainment	1.05	4.39	1.1	4.62
Carbon Monoxide	attainment	1.66	6.98	1.75	7.35
Lead					
Other: Air Toxics					
formaldehyde		0.51	2.16	0.54	2.27
phenol		0.52	2.19	0.55	2.31

APPLICABLE FEDERAL RULES:

NSPS? PPP NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY?

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES \_\_\_\_\_ NO

IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

**NEW SC**

PTI Num

FACILITY

Emissions Unit ID: P052

FACILITY DESCRIPTION Modification (#1 of 2) of Line 89 to resolve notice of violation.

CITY/TWP Defiance

SIC CODE 3296 SCC CODE 3-05-017-99 EMISSIONS UNIT ID P049

EMISSIONS UNIT DESCRIPTION Line 89 Collection Module B w/venturi scrubber

DATE INSTALLED 1995

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>	attainment	4.1	17.60	6.20	26.04
Sulfur Dioxide					
Organic Compounds	attainment	1.58	6.62	1.66	6.97
Nitrogen Oxides	attainment	1.05	4.39	1.10	4.62
Carbon Monoxide	attainment	1.66	6.98	1.75	7.35
Lead					
Other: Air Toxics		0.51	2.16	0.54	2.27
		0.52	2.19	0.55	2.31

APPLICABLE FEDERAL RULES:

NSPS? **PPP**

NESHAP?

PSD?

OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY?

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES NO

IDENTIFY THE AIR CONTAMINANTS:

**NEW SOURCE REVIEW FORM B**

PTI Number: 03-08472 Facility ID: 0320010005

FACILITY NAME Johns Manville International Inc. Plt08

FACILITY DESCRIPTION Modification (#1 of 2) of Line 89 to CITY/TWP Defiance

Emissions Unit ID: P052

SIC CODE 3296 SCC CODE 3-05-017-99 EMISSIONS UNIT ID P050

EMISSIONS UNIT DESCRIPTION Line 9 Collection Module C w/venturi scrubber

DATE INSTALLED 1995

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>	attainment	3.0	12.6	4.5	18.90
Sulfur Dioxide					
Organic Compounds	attainment	1.58	6.62	1.66	6.97
Nitrogen Oxides	attainment	1.05	4.39	1.10	4.62
Carbon Monoxide	attainment	1.66	6.98	1.75	7.35
Lead					
Other: Air Toxics		0.51	2.16	0.54	2.27
		0.52	2.19	0.55	2.31

APPLICABLE FEDERAL RULES:

NSPS? **PPP**

NESHAP?

PSD?

OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY?

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ \_\_\_\_\_

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES \_\_\_\_\_ NO

IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

**NEW SOURCE REVIEW FORM B**

PTI Number: 03-08472

Facility ID: 0320010005

FACILITY NAME Johns Manville International Inc. Plt08

FACILITY DESCRIPTION Modification (#1 of 2) of Line 89 to

CITY/TWP Defiance

Emissions Unit ID: P052

SIC CODE 3296

SCC CODE 3-05-017-99

EMISSIONS UNIT ID P051

EMISSIONS UNIT DESCRIPTION Line 89 Curing Oven w/thermal oxidizer

DATE INSTALLED 1995

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>	attainment	0.30	1.30	0.45	1.80
Sulfur Dioxide					
Organic Compounds	attainment	0.60	2.39	0.63	2.52
Nitrogen Oxides	attainment	5.72	22.88	6.02	24.08
Carbon Monoxide	attainment	11.40	45.69	12.00	48.0
Lead					
Other: Air Toxics		0.19 0.24	0.76 0.95	0.20 0.25	0.80 1.00

APPLICABLE FEDERAL RULES:

NSPS? **PPP**

NESHAP?

PSD?

OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

**Enter Determination**

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY?

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT?

\$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*?

YES

NO

IDENTIFY THE AIR CONTAMINANTS:

98 **NEW SC**

PTI Num

FACILITY

Emissions Unit ID: P052

FACILITY DESCRIPTION Modification (#1 of 2) of Line 89 to  
resolve notice of violation.

CITY/TWP Defiance

SIC CODE 3296 SCC CODE 3-05-017-99 EMISSIONS UNIT ID P052

EMISSIONS UNIT DESCRIPTION Line 89 Cooling Table w/venturi scrubber

DATE INSTALLED 1995

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>	attainment	0.40	1.70	0.6	2.40
Sulfur Dioxide					
Organic Compounds	attainment	1.58	6.31	1.66	6.64
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? **PPP**

NESHAP?

PSD?

OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY?

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES NO

IDENTIFY THE AIR CONTAMINANTS:

Empty box for identifying air contaminants.