



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
DEFIANCE COUNTY**

CERTIFIED MAIL

Street Address:

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

Mailing Address:

Lazarus Gov.
Center

Application No: 03-13522

DATE: 4/3/2001

Johns Manville International Inc.
Ned Ewers
P.O. Box 7188
Defiance, OH 43512

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

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

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

CC: USEPA

NWDO



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install

Issue Date: 4/3/2001

FINAL PERMIT TO INSTALL 03-13522

Application Number: 03-13522
APS Premise Number: 0320010004
Permit Fee: **\$4200**
Name of Facility: Johns Manville International Inc.
Person to Contact: Ned Ewers
Address: P.O. Box 7188
Defiance, OH 43512

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

**1410 Columbus Avenue
Defiance, Ohio**

Description of proposed emissions unit(s):

Increase of pipe insulation manufacturing capacity. Which includes modification of two existing lines and addition of two lines.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

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

1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted 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.11 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 applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit 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.

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).

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.

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	127.66 (*64.97)
OC	45.64
NOx	32.50
CO	54.84
SO ₂	11.17
Fluorides	3.81 (*1.16)

*net increase

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

None

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

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-17-07(A)
P003 - Handwrap Product Curing Unit #36 (Modification to transfer from manual operation to semi-automatic operation which allows for increase in production)	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-10 through 20 40 <u>CFR</u> Part 63 Subpart NNN OAC rule 3745-31-05(A)(3)	

OAC rule 3745-21-07(G)

OAC rule 3745-17-11(B)

Applicable Emissions
Limitations/Control
Measures

See A.I.2.a.

See A.I.2.b

The requirements of this rule also include compliance with the requirements of 40 CFR Part 52.21, OAC rule 3745-31-10 through 20, OAC rule 3745-17-07(A) and 40 CFR Part 63 Subpart NNN.

0.84 lb particulate emissions (PE)/hr, 3.68 tons PE/year (see A.2.b)

0.98 lb organic compounds (OC)/hr, 4.31 tons OC/year

0.41 lb nitrogen oxide (NO_x)/hr, 1.81 tons NO_x/year

0.41 lb carbon monoxide (CO)/hr, 1.79 tons CO/year

Exempt (see A.II.1).

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity as a 6-minute average except as provided by rule.

2. Additional Terms and Conditions

- 2.a** Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that no control technologies for PE were cost effective.
- 2.b** The owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of this subpart by no later than June 14, 2002, for an existing wool fiberglass manufacturing line producing a bonded pipe product.
- 2.c** All PE is assumed to be PM₁₀.

II. Operational Restrictions

1. The use of photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit is prohibited.

III. Monitoring and/or Recordkeeping Requirements

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

Issued

Emissions Unit ID: P003

- emissions;
- d. the total duration of any abnormal visible emission incident; and
 - e. any corrective actions taken to eliminate the abnormal visible emissions.
3. Notwithstanding the frequency of reporting requirements specified in section IV. Reporting Requirements, the permittee may reduce the frequency of visual observations from at least five (5) days per week to weekly reading on this emissions unit if the following conditions are met:
- a. for one full quarter this emissions unit visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the recordkeeping and monitoring requirements specified in section III.

IV. Reporting Requirements

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

V. Testing Requirements

1. Compliance 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: 0.84 lb PE/hr, 3.68 tons PE/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 5 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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.

- b. Emission Limitation: 0.98 lb OC/hr, 4.31 tons OC/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 18, Method 25, and/or Method 25A of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 0.41 lb NO_x/hr, 1.81 tons NO_x/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the

Emissions Unit ID: P003

permittee shall demonstrate compliance by testing in accordance with Method 7 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 0.41 lb CO/hr, 1.79 tons CO/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 10 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 20% opacity as a 6-minute average, except as provided by rule

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

VI. Miscellaneous Requirements

1. Prevention of Significant Deterioration (PSD)
 - a. Emissions units P003, P040, P042, P043, P044, P048, P049, P050, P051, and P052, as described in this Permit to Install (PTI), is subject to the applicable provisions of the Prevention of Significant Deterioration

(PSD) regulations as promulgated by the United States Environmental Protection Agency (U.S. EPA). The authority to apply and enforce the PSD regulations has been delegated to the Ohio EPA.

In accordance with 40 CFR 124.15, 124.19, and 124.20 the following shall apply:

- i. The effective date of the permit shall be 30 days after the service of notice to any public commentors the final decision to issue, modify or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service notice; and
- ii. If an appeal is made to the Environmental Appeals Board of the U.S. EPA, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United State Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 21460

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>
P003 - Handwrap Product Curing Unit #36 (modification to transfer from manual operation to semi-automatic operation which allows for increase in production)		See B.III.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

- 1. The permit to install for this permit action as evaluated based on the actual materials (binder resin) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). This analysis is based upon the combined modeling of "all" air emission sources emitting air toxics that are contained in this PTI. The following

Emissions Unit ID: P003

summarizes the results of the modeling for the "worst case" pollutant(s) for all sources combined:

- a. Pollutant: formaldehyde
 TLV (mg/m³): 0.271
 Maximum Hourly Emission Rate (lbs/hr): 3.37
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 5.85
 MAGLC (ug/m³): 6.45
2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
 - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
 3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.
 4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that

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show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

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Emissions Unit ID: P003

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	
P011 - Line #31 Forming and Collection Unit (Modification involves increase in production to debottleneck the operation of this line. This unit will feed new Line#30 Product Curing Unit.)	40 <u>CFR</u> Part 52.21	OAC rule 3745-17-11(B)
	OAC rule 3745-31-10 through 20	
	40 <u>CFR</u> Part 63 Subpart NNN	
	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A)
	OAC rule 3745-21-07(G)	

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Emissions Unit ID: P011

Applicable Emissions
Limitations/Control
Measures

pursuant to OAC rule
3745-31-05(A)(3).

See A.I.2.a.

Visible PE from the stack servicing
this emissions unit shall not exceed
20% opacity as a 6-minute average
except as provided by rule.

See A.I.2.b

The requirements of this rule
also include compliance with
the requirements of 40 CFR
Part 52.21, OAC rule
3745-31-10 through 20,
OAC rule 3745-17-07(A)
and 40 CFR Part 63 Subpart
NNN.

7.94 lbs particulate emissions
(PE)/hr, 34.76 tons PE/year
(see A.I.2.b)

2.40 lbs organic compounds
(OC)/hr, 10.53 tons OC/year

0.88 lb nitrogen oxide
(NOx)/hr, 3.83 tons
NOx/year

2.11 lbs carbon monoxide
(CO)/hr, 9.26 tons CO/year

0.99 lb sulfur dioxide
(SO₂)/hr, 4.35 tons SO₂/year

0.39 lb fluorides/hr, 1.71
tons fluorides/yr

Exempt (see A.II.1).

The emission limitation
specified by this rule is less
stringent than the emission
limitation established

2. Additional Terms and Conditions

- 2.a** Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that no control technologies for PE were cost effective.
- 2.b** The owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of this subpart by no later than June 14, 2002, for an existing wool fiberglass manufacturing line producing a bonded pipe product..
- 2.c** All PE is assumed to be PM₁₀.

II. Operational Restrictions

- 1. The use of photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit is prohibited.

III. Monitoring and/or Recordkeeping Requirements

- 1. 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.
- 2. The permittee shall perform checks at least five (5) days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any abnormal visible emission incident; and
 - e. any corrective actions taken to eliminate the abnormal visible emissions.
3. Notwithstanding the frequency of reporting requirements specified in section IV. Reporting Requirements, the permittee may reduce the frequency of visual observations from at least five (5) days per week to weekly reading on this emissions unit if the following conditions are met:
- a. for one full quarter this emissions unit visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the recordkeeping and monitoring requirements specified in section III.

IV. Reporting Requirements

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

V. Testing Requirements

1. Emissions Testing: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. the emissions testing shall be conducted within 6 months after modification of this emissions.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable

mass emission rate for PE and fluorides.

- c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: for PE, Method 5 of 40 CFR Part 60, for fluorides, Method 13 or Method 26 as specified in 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 an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

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

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: 7.94 lbs PE/hr, 34.76 tons PE/yr

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

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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.

- b. Emission Limitation: 2.40 lbs OC/hr, 10.53 tons OC/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 18, Method 25, and/or Method 25A of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 0.88 lb NO_x/hr, 3.83 tons NO_x/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 7 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 2.11 lbs CO/hr, 9.26 tons CO/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 10 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 0.99 lb SO₂/hr, 4.35 tons SO₂/yr

Johns Manville International Inc.

PTI Application: 03 13522

Issued

Facility ID: 0320010004

Emissions Unit ID: P011

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 6 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 0.39 lb fluorides/hr, 1.71 tons fluorides/yr

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

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 20% opacity as a 6-minute average, except as provided by rule

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

VI. Miscellaneous Requirements

1. Prevention of Significant Deterioration (PSD)

- a. Emissions units P003, P040, P042, P043, P044, P048, P049, P050, P051, and P052, as described in this Permit to Install (PTI), is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency (U.S. EPA). The authority to apply and enforce the PSD regulations has been delegated to the Ohio EPA.

In accordance with 40 CFR 124.15, 124.19, and 124.20 the following shall apply:

- i. The effective date of the permit shall be 30 days after the service of notice to any public commentors the final decision to issue, modify or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service notice; and
- ii. If an appeal is made to the Environmental Appeals Board of the U.S. EPA, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United State Environmental Protection Agency
Environmental Appeals Board

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Johns I

PTI A₁

Issued: 4/3/2001

Emissions Unit ID: P011

401 M Street, SW (MC-113do)
Washington, DC 21460

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>
P011 - Line #31 Forming and Collection Unit (Modification involves increase in production to debottleneck the operation of this line. This unit will feed new Line #30 Product Curing Unit.)		See B.III

2. Additional Terms and Conditions**2.a** None**II. Operational Restrictions**

None

III. Monitoring and/or Recordkeeping Requirements

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

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Emissions Unit ID: P011

"all" air emission sources emitting air toxics that are contained in this PTI. The following summarizes the results of the modeling for the "worst case" pollutant(s) for all sources combined:

- a. Pollutant: formaldehyde
TLV (mg/m³): 0.271
Maximum Hourly Emission Rate (lbs/hr): 3.37
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 5.85
MAGLC (ug/m³): 6.45
2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
 - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.
4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	
P040 - Handwrap Product Curing Unit #38 (Modification to transfer from manual operation to semi-automatic operation which allows for increase in production)	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-10 through 20 40 <u>CFR</u> Part 63 Subpart NNN OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-11(B) OAC rule 3745-17-07(A)
	OAC rule 3745-21-07(G)	

Applicable Emissions
Limitations/Control
Measures

See A.I.2.a.

See A.I.2.b

The requirements of this rule also include compliance with the requirements of 40 CFR Part 52.21, OAC rule 3745-31-10 through 20, OAC rule 3745-17-07(A), and 40 CFR Part 63 Subpart NNN .

0.84 lb particulate emissions (PE)/hr, 3.68 tons PE/year (see A.2.c)

0.98 lb organic compounds (OC)/hr, 4.31 tons OC/year

0.41 lb nitrogen oxide (NO_x)/hr, 1.81 tons NO_x/year

0.41 lb carbon monoxide (CO)/hr, 1.79 tons CO/year

Exempt (see A.II.1).

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity as a 6-minute average except as provided by rule.

2. Additional Terms and Conditions

- 2.a** Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that no control technologies for PE were cost effective.
- 2.b** The owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of this subpart by no later than June 14, 2002, for an existing wool fiberglass manufacturing line producing a bonded pipe product.
- 2.c** All PE is assumed to be PM₁₀.

II. Operational Restrictions

- 1. The use of photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit is prohibited.

III. Monitoring and/or Recordkeeping Requirements

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

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3. Notwithstanding the frequency of reporting requirements specified in section IV. Reporting Requirements, the permittee may reduce the frequency of visual observations from at least five (5) days per week to weekly reading on this emissions unit if the following conditions are met:
 - a. for one full quarter this emissions unit visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the recordkeeping and monitoring requirements specified in section III.

IV. Reporting Requirements

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

V. Testing Requirements

1. Compliance 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: 0.84 lb PE/hr, 3.68 tons PE/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 5 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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.

- b. Emission Limitation: 0.98 lb OC/hr, 4.31 tons OC/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 18, Method 25, and/or Method 25A of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 0.41 lb NO_x/hr, 1.81 tons NO_x/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 7 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 0.41 lb CO/hr, 1.79 tons CO/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 10 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 20% opacity as a 6-minute average, except as provided by rule

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

VI. Miscellaneous Requirements

1. Prevention of Significant Deterioration (PSD)

- a. Emissions units P003, P040, P042, P043, P044, P048, P049, P050, P051, and P052, as described in this Permit to Install (PTI), is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency (U.S. EPA). The authority to apply and enforce the PSD regulations has been delegated to the Ohio EPA.

In accordance with 40 CFR 124.15, 124.19, and 124.20 the following shall apply:

- i. The effective date of the permit shall be 30 days after the service of notice to any public commentors the final decision to issue, modify or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service notice; and
- ii. If an appeal is made to the Environmental Appeals Board of the U.S. EPA, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United State Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 21460

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>
P040 - Handwrap Product Curing Unit #38 (modification to transfer from manual operation to semi-automatic operation which allows for increase in production)		See B.III.

2. Additional Terms and Conditions

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this permit action as evaluated based on the actual materials (binder resin) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). This analysis is based upon the combined modeling of "all" air emission sources emitting air toxics that are contained in this PTI. The following

summarizes the results of the modeling for the "worst case" pollutant(s) for all sources combined:

- a. Pollutant: formaldehyde
TLV (mg/m³): 0.271
Maximum Hourly Emission Rate (lbs/hr): 3.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 5.85
MAGLC (ug/m³): 6.45

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
 - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.
4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

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Issued: 4/3/2001

Emissions Unit ID: P040

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	
P042 - Line #37 Forming and Collection Unit (Modification to allow for increase in production)	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-10 through 20	OAC rule 3745-21-07(G)
	40 <u>CFR</u> Part 63 Subpart NNN OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-11(B)
		OAC rule 3745-17-07(A)

Johns I

PTI A₁**Issued: 4/3/2001**

Emissions Unit ID: P042

Applicable Emissions
Limitations/Control
Measures

control requirements (see
 A.I.2.a.)

See A.I.2.b.

The requirements of this rule
 also include compliance with
 the requirements of 40 CFR
 Part 52.21, OAC rule
 3745-31-10 through 20, 40
CFR Part 63 Subpart NNN,
 and OAC rule
 3745-17-07(A)

5.83 lbs particulate emissions
 (PE)/hr, 25.54 tons PE/yr
 (see A.I.2.d)

1.81 lbs organic compounds
 (OC)/hr, 7.93 tons OC/yr

2.85 lbs nitrogen oxide
 (NO_x)/hr, 12.48 tons
 NO_x/yr

2.22 lbs carbon monoxide
 (CO)/hr, 9.72 tons CO/yr

1.22 lbs sulfur dioxide
 (SO₂)/hr, 5.34 tons SO₂/yr

0.48 lb fluorides/hr, 2.1 tons
 fluorides/yr

Exempt (see A.II.1).

The emission limitation specified by
 this rule is less stringent than the
 emission limitation established
 pursuant to OAC rule
 3745-31-05(A)(3).

Visible PE from the stack servicing
 this emissions unit shall not exceed
 20% opacity as a 6-minute average
 except as provided by rule.

2. Additional Terms and Conditions

- 2.a** The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the use of a venturi scrubber (see A.I.2.c).
- 2.b** The owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of this subpart by no later than June 14, 2002, for an existing wool fiberglass manufacturing line producing a bonded pipe product.
- 2.c** In 1994 PTI # 03-07940 was issued requiring emissions unit P042 and P043 to be controlled with a venturi scrubber. The use of a venturi scrubber meeting a mass emission limitation of 5.83 lbs PE/hr was established as "Best Available Technology" (BAT) under OAC rule 3745-31-05. The BAT determination was made in accordance with OAC rule 3745-31-02(A)(2) from a request by the permittee to voluntarily limit the allowable emissions of PE for purposes of avoiding PSD. The BACT determination was based on the venturi scrubber already being installed, thus the cost effectiveness analysis did not include installed capital costs.
- 2.d** All PE is assumed to be PM₁₀.

II. Operational Restrictions

1. The use of photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit is prohibited.
2. The pressure drop across the scrubber shall be continuously maintained at a value of not less than 5 inches of water at all times while the emissions unit is in operation.
3. The scrubber water flow rate shall be continuously maintained at a value of not less than 300 gallons per minute at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping Requirements

1. 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.

2. The permittee shall properly install, operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
3. The permittee shall collect and record the following information each day:
 - a. the pressure drop across the scrubber, in inches of water, on once per shift basis;
 - b. the scrubber water flow rate, in gallons per minute, on once per shift basis; and
 - c. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. The permittee shall perform checks at least five (5) days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any abnormal visible emission incident; and
 - e. any corrective actions taken to eliminate the abnormal visible emissions.
5. Notwithstanding the frequency of reporting requirements specified in section IV. Reporting Requirements, the permittee may reduce the frequency of visual observations from at least five (5) days per week to weekly reading on this emissions unit if the following conditions are met:
 - a. for one full quarter this emissions unit visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the recordkeeping and monitoring requirements specified in section III.

IV. Reporting Requirements

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

V. Testing Requirements

1. Emissions Testing: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. the emissions testing shall be conducted within 6 months after modification of this emissions.
 - b. The emissions testing shall be conducted to demonstrate compliance with the mass allowable emission rate of 5.83 lbs PE/hr and 0.48 lb fluorides/hr.
 - c. The following test method(s) shall be employed to demonstrate compliance with the requirements specified in A.V.2.b: for PE, Method 5 as specified in 40 CFR Part 60, Appendix A; for fluorides Method 13 or Method 26 as specified in 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 an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the

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

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

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

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: 5.83 lbs PE/hr, 25.54 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 the permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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.

- b. Emission Limitation: 1.81 lbs OC/hr, 7.93 tons OC/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 18, Method 25, and/or Method 25A of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 2.85 lbs NO_x/hr, 12.48 tons NO_x/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 7 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 2.22 lbs CO/hr, 9.72 tons CO/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 10 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 1.22 lbs SO₂/hr, 5.34 tons SO₂/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 6 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 0.48 lb fluorides/hr, 2.10 tons fluorides/yr

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

Emissions Unit ID: P042

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

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 20% opacity as a 6-minute average, except as provided by rule

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

VI. Miscellaneous Requirements

1. Prevention of Significant Deterioration (PSD)

- a. Emissions units P003, P040, P042, P043, P044, P048, P049, P050, P051, and P052, as described in this Permit to Install (PTI), is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency (U.S. EPA). The authority to apply and enforce the PSD regulations has been delegated to the Ohio EPA.

In accordance with 40 CFR 124.15, 124.19, and 124.20 the following shall apply:

- i. The effective date of the permit shall be 30 days after the service of notice to any public commentors the final decision to issue, modify or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service notice; and
- ii. If an appeal is made to the Environmental Appeals Board of the U.S. EPA, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United State Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 21460

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>
P042 - Line #37 Forming and Collection Unit (Modification to allow for increase in production)		See B.III.

2. Additional Terms and Conditions

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this permit action as evaluated based on the actual materials (binder resin) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). This analysis is based upon the combined modeling of "all" air emission sources emitting air toxics that are contained in this PTI. The following summarizes the results of the modeling for the "worst case" pollutant(s) for all sources combined:

- a. Pollutant: formaldehyde

TLV (mg/m³): 0.271

Maximum Hourly Emission Rate (lbs/hr): 3.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 5.85

MAGLC (ug/m³): 6.45

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
 - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.
4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

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Johns I

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IV. Reporting Requirements

None

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Issued: 4/3/2001

Emissions Unit ID: P042

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P043 - Line #37 Product Curing Unit (Increase in production due to increase from emissions unit P042)	40 <u>CFR</u> Part 52.21	control requirements (see A.I.2.a)
	OAC rule 3745-31-10 through 20	
	40 <u>CFR</u> Part 63 Subpart NNN	See A.I.2.b
	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of 40 <u>CFR</u> Part 52.21, OAC rule 3745-31-10 through 20, OAC rule 3745-17-07(A), and 40 <u>CFR</u> Part 63 Subpart NNN.
		0.79 lb particulate emissions (PE)/hr, 3.46 tons PE/year (see A.I.2.c)
		1.02 lbs organic compounds (OC)/hr, 4.47 tons OC/year
		1.67 lbs nitrogen oxide (NO _x)/hr, 7.32 tons NO _x /year
	2.22 lbs carbon monoxide (CO)/hr, 9.72 tons CO/year	
	OAC rule 3745-21-07(G)	Exempt (see A.II.1).
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	

Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity as a 6-minute average except as provided by rule.

2. Additional Terms and Conditions

- 2.a** The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the use of a venturi scrubber (see A.I.2.c).
- 2.b** The owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of this subpart by no later than June 14, 2002, for an existing wool fiberglass manufacturing line producing a bonded pipe product.
- 2.c** In 1994, PTI # 03-07940 was issued requiring emissions unit P042 and P043 to be controlled with a venturi scrubber. The use of a venturi scrubber meeting a mass emission limitation of 0.79 lb PE/hr was established as "Best Available Technology" (BAT) under OAC rule 3745-31-05. The BAT determination was made in accordance with OAC rule 3745-31-02(A)(2) from a request by the permittee to voluntarily limit the allowable emissions of PE for purposes of avoiding PSD. The BACT determination was based on the venturi scrubber already being installed, thus the cost effectiveness analysis did not include installed capital costs.
- 2.d** All PE is assumed to be PM₁₀.

II. Operational Restrictions

- 1. The use of photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit is prohibited.
- 2. The pressure drop across the scrubber shall be continuously maintained at a value of not less than 5 inches of water at all times while the emissions unit is in operation.
- 3. The scrubber water flow rate shall be continuously maintained at a value of not less than 300 gallons per minute at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping Requirements

- 1. 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.
2. The permittee shall properly install, operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
3. The permittee shall collect and record the following information each day:
 - a. the pressure drop across the scrubber, in inches of water, on once per shift basis;
 - b. the scrubber water flow rate, in gallons per minute, on once per shift basis; and
 - c. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. The permittee shall perform checks at least five (5) days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any abnormal visible emission incident; and
 - e. any corrective actions taken to eliminate the abnormal visible emissions.
5. Notwithstanding the frequency of reporting requirements specified in section IV. Reporting Requirements, the permittee may reduce the frequency of visual observations from at least five (5) days per week to weekly reading on this emissions unit if the following conditions are met:
 - a. for one full quarter this emissions unit visual observations indicate no abnormal visible

emissions; and

- b. the permittee continues to comply with all the recordkeeping and monitoring requirements specified in section III.

IV. Reporting Requirements

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

V. Testing Requirements

1. Emissions Testing: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. the emissions testing shall be conducted within 6 months after modification of this emissions.
 - b. The emissions testing shall be conducted to demonstrate compliance with the mass allowable emission rate of 0.79 lb PE/hr.
 - c. The following test method shall be employed to demonstrate compliance with the requirements specified in A.V.2.b: for PE, Method 5 as specified in 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 an "Intent to

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

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

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

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: 0.79 lb PE/hr, 3.46 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 the permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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.

- b. Emission Limitation: 1.02 lbs OC/hr, 4.47 tons OC/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 18, Method 25 and/or Method 25 of 40 CFR Part 60, Appendix

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A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 1.67 lbs NO_x/hr, 7.32 tons NO_x/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 7 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 2.22 lbs CO/hr, 9.72 tons CO/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 10 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 20% opacity as a 6-minute average, except as provided by rule

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

VI. Miscellaneous Requirements

1. Prevention of Significant Deterioration (PSD)

- a. Emissions units P003, P040, P042, P043, P044, P048, P049, P050, P051, and P052, as described in this Permit to Install (PTI), is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency (U.S. EPA). The authority to apply and enforce

the PSD regulations has been delegated to the Ohio EPA.

In accordance with 40 CFR 124.15, 124.19, and 124.20 the following shall apply:

- i. The effective date of the permit shall be 30 days after the service of notice to any public commentors the final decision to issue, modify or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service notice; and
- ii. If an appeal is made to the Environmental Appeals Board of the U.S. EPA, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United State Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 21460

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>
P043 - Line #37 Product Curing Unit (Increase in production due to increase from emissions unit P042)		See B.III.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this permit action as evaluated based on the actual materials (binder resin) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). This analysis is based upon the combined modeling of "all" air emission sources emitting air toxics that are contained in this PTI. The following summarizes the results of the modeling for the "worst case" pollutant(s) for all sources combined:
 - a. Pollutant: formaldehyde
 TLV (mg/m³): 0.271
 Maximum Hourly Emission Rate (lbs/hr): 3.37
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 5.85
 MAGLC (ug/m³): 6.45

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
 - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.
4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

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Johns Manville International Inc.

PTI Application: **03 12522**

Issued

Facility ID: **0320010004**

Emissions Unit ID: P043

IV. Reporting Requirements

None

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Issued: 4/3/2001

Emissions Unit ID: P043

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P044 - Line #37 Product Finishing Unit (Increase in production due to increase from emissions unit P042)	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-10 through 20 OAC rule 3745-31-05(A)(3)	control requirements (see A.I.2.a) The requirements of this rule also include compliance with the requirements of 40 <u>CFR</u> Part 52.21, OAC rule 3745-31-10 through 20 and OAC rule 3745-17-07(A). 0.86 lb particulate emissions (PE)/hr, 3.77 tons PE/yr (see A.I.2.b)
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity as a 6-minute average except as provided by rule.

2. Additional Terms and Conditions

- 2.a The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the use of a control system consisting of

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Issued: 4/3/2001

Emissions Unit ID: P044

baghouse(s) and cyclone(s) connected in series. The control system shall achieve a mass outlet rate of 0.86 lb PE/hr (This mass outlet rate is consistent with a 99% removal efficiency).

2.b All PE is assumed to be PM₁₀.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range 0.5 to 12 inches of water while the emission 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.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. These deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

1. Emissions Testing: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. the emissions testing shall be conducted within 6 months after modification of this emissions.
 - b. The emissions testing shall be conducted to demonstrate compliance with the mass allowable emission rate of 0.86 lb PE/hr.
 - c. The following test method shall be employed to demonstrate compliance with the requirements specified in A.V.2.b: for PE, Method 5 as specified in 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.
 - e. The emissions testing shall also be conducted to demonstrate compliance with the

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Emissions Unit ID: P044

allowable emission rate across the entire pressure drop range of 0.5-12 inches of water.

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

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

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

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: 0.86 lb PE/hr, 3.77 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 the permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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.

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

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

VI. Miscellaneous Requirements

1. Prevention of Significant Deterioration (PSD)
 - a. Emissions units P003, P040, P042, P043, P044, P048, P049, P050, P051, and P052, as

described in this Permit to Install (PTI), is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency (U.S. EPA). The authority to apply and enforce the PSD regulations has been delegated to the Ohio EPA.

In accordance with 40 CFR 124.15, 124.19, and 124.20 the following shall apply:

- i. The effective date of the permit shall be 30 days after the service of notice to any public commentors the final decision to issue, modify or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service notice; and
- ii. If an appeal is made to the Environmental Appeals Board of the U.S. EPA, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United State Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 21460

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>
P044 - Line #37 Product Finishing Unit (Increase in production due to increase from emissions unit P042)		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P048 - Handwrap Product Finishing Unit #36/#38 (Modification to increase emissions due to semi-automation of emissions units P003 & P040)	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-10 through 20 OAC rule 3745-31-05(A)(3) OAC rule 3745-17-11(B) OAC rule 3745-17-07(A)	control requirements (see A.I.2.a) The requirements of this rule also include compliance with the requirements of 40 <u>CFR</u> Part 52.21, OAC rule 3745-31-10 through 20 and OAC rule 3745-17-07(A). 0.43 lb particulate emissions (PE)/hr, 1.88 tons PE/year (see A.I.2.b) The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity as a 6-minute average except as provided by rule.

2. Additional Terms and Conditions

- 2.a The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the use of a control system consisting of

baghouse(s) and cyclone(s) connected in series. The control system shall achieve a mass outlet rate of 0.43 lb PE/hr (This mass outlet rate is consistent with a 99% removal efficiency).

2.b All PE is assumed to be PM₁₀.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range 0.5-12.0 inches of water while the 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.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. These deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

1. Emissions Testing: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. the emissions testing shall be conducted within 6 months after modification of this emissions.
 - b. The emissions testing shall be conducted to demonstrate compliance with the mass allowable emission rate of 0.43 lb PE/hr.
 - c. The following test method shall be employed to demonstrate compliance with the requirements specified in A.V.2.b: for PE, Method 5 as specified in 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.
- e. The emissions testing shall also be conducted to demonstrate compliance with the allowable emission rate across the entire pressure drop range of 0.5-12 inches of water.

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

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

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

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: 0.43 lb PE/hr, 1.88 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 the permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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.
 - b. Emission Limitation: 20% opacity as a 6-minute average, except as provided by rule

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

VI. Miscellaneous Requirements

1. Prevention of Significant Deterioration (PSD)

- a. Emissions units P003, P040, P042, P043, P044, P048, P049, P050, P051, and P052, as described in this Permit to Install (PTI), is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency (U.S. EPA). The authority to apply and enforce the PSD regulations has been delegated to the Ohio EPA.

In accordance with 40 CFR 124.15, 124.19, and 124.20 the following shall apply:

- i. The effective date of the permit shall be 30 days after the service of notice to any public commentors the final decision to issue, modify or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service notice; and
- ii. If an appeal is made to the Environmental Appeals Board of the U.S. EPA, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United State Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 21460

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 - Handwrap Product Finishing Unit #36/#38 (Modification to increase emissions due to semi-automation of emissions units P003 & P040)		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	
P049 - Line #30 Product Curing Unit	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-10 through 20	OAC rule 3745-17-11(B)
	40 <u>CFR</u> Part 63 Subpart NNN OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A)
	OAC rule 3745-21-07(G)	

Applicable Emissions
Limitations/Control
Measures

See A.I.2.a

See A.I.2.b

The requirements of this rule also include compliance with the requirements of 40 CFR Part 52.21, OAC rule 3745-31-10 through 20, 40 CFR Part 63 Subpart NNN and OAC rule 3745-17-07(A).

0.53 lb particulate emissions (PE)/hr, 2.30 tons PE/year (see A.I.2.c)

0.67 lb organic compounds (OC)/hr, 2.92 tons OC/year

0.25 lb nitrogen oxide (NO_x)/hr, 1.1 tons NO_x/year

1.06 lbs carbon monoxide (CO)/hr, 4.66 tons CO/year

Exempt (see A.II.1).

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity as a 6-minute average except as provided by rule.

2. Additional Terms and Conditions

- 2.a** Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that no control technologies for PE were cost effective.
- 2.b** The owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of this subpart by no later than June 14, 2002, for an existing wool fiberglass manufacturing line producing a bonded pipe product.
- 2.c** All PE is assumed to be PM₁₀.

II. Operational Restrictions

- 1. The use of photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit is prohibited.

III. Monitoring and/or Recordkeeping Requirements

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

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Emissions Unit ID: P049

3. Notwithstanding the frequency of reporting requirements specified in section IV. Reporting Requirements, the permittee may reduce the frequency of visual observations from at least five (5) days per week to weekly reading on this emissions unit if the following conditions are met:
 - a. for one full quarter this emissions unit visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the recordkeeping and monitoring requirements specified in section III.

IV. Reporting Requirements

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

V. Testing Requirements

1. Compliance 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: 0.53 lb PE/hr, 2.30 tons PE/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 5 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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.

- b. Emission Limitation: 0.67 lb OC/hr, 2.92 tons OC/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions

unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 18, Method 25, and/or Method 25 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 0.25 lb NO_x/hr, 1.1 tons NO_x/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 7 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 1.06 lbs CO/hr, 4.66 tons CO/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 10 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 20% opacity as a 6-minute average, except as provided by rule

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

VI. Miscellaneous Requirements

1. Prevention of Significant Deterioration (PSD)

- a. Emissions units P003, P040, P042, P043, P044, P048, P049, P050, P051, and P052, as described in this Permit to Install (PTI), is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency (U.S. EPA). The authority to apply and enforce the PSD regulations has been delegated to the Ohio EPA.

In accordance with 40 CFR 124.15, 124.19, and 124.20 the following shall apply:

- i. The effective date of the permit shall be 30 days after the service of notice to any public commentors the final decision to issue, modify or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service notice; and
- ii. If an appeal is made to the Environmental Appeals Board of the U.S. EPA, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United State Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 21460

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>
P049 - Line #30 Product Curing Unit		See B.III.

2. Additional Terms and Conditions

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this permit action as evaluated based on the actual materials (binder resin) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). This analysis is based upon the combined modeling of "all" air emission sources emitting air toxics that are contained in this PTI. The following summarizes the results of the modeling for the "worst case" pollutant(s) for all sources combined:
 - a. Pollutant: formaldehyde
 TLV (mg/m³): 0.271
 Maximum Hourly Emission Rate (lbs/hr): 3.37

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Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5.85

MAGLC (ug/m3): 6.45

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
 - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.
4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

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Issued: 4/3/2001

Emissions Unit ID: P049

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P050 - Line #30 Product Finishing Unit	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-10 through 20 OAC rule 3745-31-05(A)(3) OAC rule 3745-17-11(B) OAC rule 3745-17-07(A)	control requirements (see A.I.2.a) The requirements of this rule also include compliance with the requirements of 40 <u>CFR</u> Part 52.21, OAC rule 3745-31-10 through 20 and OAC rule 3745-17-07(A). 0.86 lb particulate emissions (PE)/hr, 3.77 tons PE/yr (see A.I.2.b) The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity as a 6-minute average except as provided by rule.

2. Additional Terms and Conditions

- 2.a The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the use of a control system consisting of

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Emissions Unit ID: P050

baghouse(s) and cyclone(s) connected in series. The control system shall achieve a mass outlet rate of 0.86 lb PE/hr (This mass outlet rate is consistent with a 99% removal efficiency).

- 2.b** All PE is assumed to be PM₁₀.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 0.5-12.0 inches of water while the 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.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. These deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

1. Emissions Testing: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. the emissions testing shall be conducted within 6 months after modification of this emissions.
 - b. The emissions testing shall be conducted to demonstrate compliance with the mass allowable emission rate of 0.86 lb PE/hr.
 - c. The following test method shall be employed to demonstrate compliance with the requirements specified in A.V.2.b: for PE, Method 5 as specified in 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.
 - e. The emissions testing shall also be conducted to demonstrate compliance with the

allowable emission rate across the entire pressure drop range of 0.5-12 inches of water.

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

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

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

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: 0.86 lb PE/hr, 3.77 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 the permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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.

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

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

VI. Miscellaneous Requirements

1. Prevention of Significant Deterioration (PSD)
 - a. Emissions units P003, P040, P042, P043, P044, P048, P049, P050, P051, and P052, as described in this Permit to Install (PTI), is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency (U.S. EPA). The authority to apply and enforce the PSD regulations has been delegated to the Ohio EPA.

In accordance with 40 CFR 124.15, 124.19, and 124.20 the following shall apply:

- i. The effective date of the permit shall be 30 days after the service of notice to any public commentors the final decision to issue, modify or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service notice; and
- ii. If an appeal is made to the Environmental Appeals Board of the U.S. EPA, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United State Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 21460

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 #30 Product Finishing Unit		

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

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Issued: 4/3/2001

Emissions Unit ID: P050

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>	
P051 - Line #38 Product Curing Unit	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-10 through 20 40 <u>CFR</u> Part 63 Subpart NNN OAC rule 3745-31-05(A)(3)	OAC rule 3745-21-07(G) OAC rule 3745-17-11(B) OAC rule 3745-17-07(A)

Applicable Emissions
Limitations/Control
Measures

See A.I.2.a

See A.I.2.b

The requirements of this rule also include compliance with the requirements of 40 CFR Part 52.21, OAC rule 3745-31-10 through 20, OAC rule 3745-17-07(A) and 40 CFR Part 63 Subpart NNN.

2.02 lbs particulate emissions (PE)/hr, 8.84 tons PE/year (see A.I.2.c)

2.56 lb organic compounds (OC)/hr, 11.21 tons OC/year

0.97 lb nitrogen oxide (NO_x)/hr, 4.25 tons NO_x/year

4.09 lbs carbon monoxide (CO)/hr, 17.92 tons CO/year

0.34 lb sulfur dioxide (SO₂)/hr, 1.51 tons SO₂/yr

Exempt (see A.II.1).

The emission limitation specified by this rule is less stringent than the emission

limitation established pursuant to OAC rule 3745-31-05(A)(3).

Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity as a 6-minute average except as provided by rule.

2. Additional Terms and Conditions

- 2.a** Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that no control technologies for PE were cost effective.
- 2.b** The owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of this subpart by no later than June 14, 2002, for an existing wool fiberglass manufacturing line producing a bonded pipe product.
- 2.c** All PE is assumed to be PM₁₀.

II. Operational Restrictions

1. The use of photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit is prohibited.

III. Monitoring and/or Recordkeeping Requirements

1. 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.
2. The permittee shall perform checks at least five (5) days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any abnormal visible emission incident; and
 - e. any corrective actions taken to eliminate the abnormal visible emissions.
3. Notwithstanding the frequency of reporting requirements specified in section IV. Reporting Requirements, the permittee may reduce the frequency of visual observations from at least five (5) days per week to weekly reading on this emissions unit if the following conditions are met:
 - a. for one full quarter this emissions unit visual observations indicate no abnormal visible

emissions; and

- b. the permittee continues to comply with all the recordkeeping and monitoring requirements specified in section III.

IV. Reporting Requirements

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

V. Testing Requirements

1. Compliance 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: 2.02 lb PE/hr, 8.84 tons PE/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 5 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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.

- b. Emission Limitation: 2.56 lbs OC/hr, 11.21 tons OC/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions

Emissions Unit ID: P051

unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 18, Method 25 and/or Method 25A of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 0.97 lb NO_x/hr, 4.25 tons NO_x/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 7 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 4.09 lbs CO/hr, 17.92 tons CO/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 10 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 0.34 lb SO₂/hr, 1.51 tons SO₂/yr

Applicable Compliance Method: The hourly emission limitation represents the emissions unit's potential to emit determined by multiplying the maximum process rate as indicated in the permit application by an emission factor derived from stack testing of a similar emissions unit. If required the permittee shall demonstrate compliance by testing in accordance with Method 6 of 40 CFR Part 60, Appendix A.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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: 20% opacity as a 6-minute average, except as provided by rule

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

VI. Miscellaneous Requirements

1. Prevention of Significant Deterioration (PSD)

- a. Emissions units P003, P040, P042, P043, P044, P048, P049, P050, P051, and P052, as described in this Permit to Install (PTI), is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency (U.S. EPA). The authority to apply and enforce the PSD regulations has been delegated to the Ohio EPA.

In accordance with 40 CFR 124.15, 124.19, and 124.20 the following shall apply:

- i. The effective date of the permit shall be 30 days after the service of notice to any public commentors the final decision to issue, modify or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service notice; and
- ii. If an appeal is made to the Environmental Appeals Board of the U.S. EPA, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United State Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 21460

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 #38 Product Curing Unit		See B.III.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

- 1. The permit to install for this permit action as evaluated based on the actual materials (binder resin) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). This analysis is based upon the combined modeling of "all" air emission sources emitting air toxics that are contained in this PTI. The following summarizes the results of the modeling for the "worst case" pollutant(s) for all sources combined:

- a. Pollutant: formaldehyde
 - TLV (mg/m3): 0.271
 - Maximum Hourly Emission Rate (lbs/hr): 3.37
 - Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5.85
 - MAGLC (ug/m3): 6.45

- 2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the " Air

Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.
4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

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Emissions Unit ID: P051

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P052 - Line #38 Product Finishing Unit	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-10 through 20 OAC rule 3745-31-05(A)(3) OAC rule 3745-17-11(B) OAC rule 3745-17-07(A)	control requirements (see A.I.2.a) The requirements of this rule also include compliance with the requirements of 40 <u>CFR</u> Part 52.21, OAC rule 3745-31-10 through 20 and OAC rule 3745-17-07(A). 1.20 lbs particulate emissions (PE)/hr, 5.26 tons PE/yr The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity as a 6-minute average except as provided by rule.

2. Additional Terms and Conditions

- 2.a The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the use of a control system consisting of

baghouse(s) and cyclone(s) connected in series. The control system shall achieve a mass outlet rate of 1.20 lbs PE/hr (This mass outlet rate is consistent with a 99% removal efficiency).

- 2.b** All PE is assumed to be PM₁₀.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 0.5 to 12 inches of water while the emission 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.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. These deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

1. Emissions Testing: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. the emissions testing shall be conducted within 6 months after modification of this emissions.
 - b. The emissions testing shall be conducted to demonstrate compliance with the mass allowable emission rate of 1.20 lbs PE/hr
 - c. The following test method shall be employed to demonstrate compliance with the requirements specified in A.V.2.b: for PE, Method 5 as specified in 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.

- e. The emissions testing shall also be conducted to demonstrate compliance with the allowable emission rate across the entire pressure drop range of 0.5-12 inches of water.

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

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

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

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: 1.20 lbs PE/hr, 5.26 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 the permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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.

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

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

VI. Miscellaneous Requirements

1. Prevention of Significant Deterioration (PSD)

- a. Emissions units P003, P040, P042, P043, P044, P048, P049, P050, P051, and P052, as described in this Permit to Install (PTI), is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency (U.S. EPA). The authority to apply and enforce the PSD regulations has been delegated to the Ohio EPA.

In accordance with 40 CFR 124.15, 124.19, and 124.20 the following shall apply:

- i. The effective date of the permit shall be 30 days after the service of notice to any public commentors the final decision to issue, modify or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service notice; and
- ii. If an appeal is made to the Environmental Appeals Board of the U.S. EPA, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United State Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 21460

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>
P052 - Line #38 Product Finishing Unit		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P031 - Line #31 Product Finishing Unit (modification) modification involves lowering emission limitation	OAC rule 3745-31-05(A)(3)	The requirement of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). control requirements (See A.I.2.a)
	OAC rule 3745-17-11(B)	1.10 lbs particulate emissions (PE)/hr, 4.82 tons PE/yr (see A.I.2.b) The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity as a 6-minute average except as provided by rule.

2. Additional Terms and Conditions

- 2.a The BAT determination was made in accordance with OAC rule 3745-31-02(A)(2) from a request by the permittee to voluntarily lower allowable emissions of PE to federally enforceable limitations of 1.10 lbs per hour (this allowable emission limitation is consistent with a 99% removal efficiency) and 4.82 tons per year based on the use of a control system consisting of baghouse(s) and cyclone(s) connected in series.

The reduced PE limitations were applied to PSD modeling requirements to demonstrate that PSD significant impact levels were not triggered.

- 2.b** All PE is assumed to be PM₁₀.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 0.5-12.0 inches of water while the 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.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. These deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

1. Emissions Testing: The permittee shall conduct, or have conducted, emission testing for this emissions unit 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 mass allowable emission rate of 1.10 lb PE/hr.
 - c. The following test method shall be employed to demonstrate compliance with the requirements specified in A.V.2.b: for PE, Method 5 as specified in 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.

- e. The emissions testing shall also be conducted to demonstrate compliance with the allowable emission rate across the entire pressure drop range of 0.5-12 inches of water.

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

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

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

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: 1.10 lbs PE/hr, 4.82 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 the permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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.

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

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Johns Manville International Inc.

PTI Application: 02 12522

Issued

Facility ID: 0320010004

Emissions Unit ID: P031

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

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P031 - Line #31 Product Finishing Unit (modification) modification involves lowering emission limitation		

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

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Issued: 4/3/2001

Emissions Unit ID: P031

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P032 - Line #32 Product Finishing Unit (modification) modification involves lowering emission limitation	OAC rule 3745-31-05(A)(3)	The requirement of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). control requirements (See A.I.2.a)
	OAC rule 3745-17-11(B)	1.10 lbs particulate emissions (PE)/hr, 4.82 tons PE/yr (see A.I.2.b) The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity as a 6-minute average except as provided by rule.

2. Additional Terms and Conditions

- 2.a The BAT determination was made in accordance with OAC rule 3745-31-02(A)(2) from a request by the permittee to voluntarily lower allowable emissions of PE to federally enforceable limitations of 1.10 lbs per hour (this allowable emission limitation is consistent

Issued

Emissions Unit ID: P032

with a 99% removal efficiency) and 4.82 tons per year based on the use of a control system consisting of baghouse(s) and cyclone(s) connected in series.

The reduced PE limitations were applied to PSD modeling requirements to demonstrate that PSD significant impact levels were not triggered.

2.b All PE is assumed to be PM₁₀.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 0.5-12.0 inches of water while the 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.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. These deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

1. Emissions Testing: The permittee shall conduct, or have conducted, emission testing for this emissions unit 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 mass allowable emission rate of 1.10 lb PE/hr
 - c. The following test method shall be employed to demonstrate compliance with the requirements specified in A.V.2.b: for PE, Method 5 as specified in 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.

- e. The emissions testing shall also be conducted to demonstrate compliance with the allowable emission rate across the entire pressure drop range of 0.5-12 inches of water.

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

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

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

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: 1.10 lbs PE/hr, 4.82 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 the permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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.

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

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Johns Manville International Inc.

PTI Application: 02 12522

Issued

Facility ID: 0320010004

Emissions Unit ID: P032

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

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P032 - Line #32 Product Finishing Unit (modification) modification involves lowering emission limitation		

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

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Issued: 4/3/2001

Emissions Unit ID: P032

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P033 - Line #33 Product Finishing Unit (modification) modification involves lowering emission limitation	OAC rule 3745-31-05(A)(3)	The requirement of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
		control requirements (See A.I.2.a)
		1.10 lbs particulate emissions (PE)/hr, 4.82 tons PE/yr (see A.I.2.b)
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity as a 6-minute average except as provided by rule.

2. Additional Terms and Conditions

- 2.a The BAT determination was made in accordance with OAC rule 3745-31-02(A)(2) from a request by the permittee to voluntarily lower allowable emissions of PE to federally enforceable limitations of 1.10 lbs per hour (this allowable emission limitation is consistent

with a 99% removal efficiency) and 4.82 tons per year based on the use of a control system consisting of baghouse(s) and cyclone(s) connected in series.

The reduced PE limitations were applied to PSD modeling requirements to demonstrate that PSD significant impact levels were not triggered.

2.b All PE is assumed to be PM₁₀.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 0.5-12.0 inches of water while the 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.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. These deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

1. Emissions Testing: The permittee shall conduct, or have conducted, emission testing for this emissions unit 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 mass allowable emission rate of 1.10 lb PE/hr.
 - c. The following test method shall be employed to demonstrate compliance with the

Emissions Unit ID: P033
requirements specified in A.V.2.b: for PE,
Method 5 as specified in 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.
- e. The emissions testing shall also be conducted to demonstrate compliance with the allowable emission rate across the entire pressure drop range of 0.5-12 inches of water.

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

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

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

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: 1.10 lbs PE/hr, 4.82 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 the permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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.

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Emissions Unit ID: P033

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

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

VI. Miscellaneous Requirements

None

B. State 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>
P033 - Line #33 Product Finishing Unit (modification) modification involves lowering emission limitation		

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

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Issued: 4/3/2001

Emissions Unit ID: P033

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P034 - Line #34 Product Finishing Unit (modification) modification involves lowering emission limitation	OAC rule 3745-31-05(A)(3)	The requirement of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
		control requirements (See A.I.2.a)
		1.10 lbs particulate emissions (PE)/hr, 4.82 tons PE/yr (see A.I.2.b)
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity as a 6-minute average except as provided by rule.

2. Additional Terms and Conditions

- 2.a The BAT determination was made in accordance with OAC rule 3745-31-02(A)(2) from a request by the permittee to voluntarily lower allowable emissions of PE to federally enforceable limitations of 1.10 lbs per hour (this allowable emission limitation is consistent

with a 99% removal efficiency) and 4.82 tons per year based on the use of a control system consisting of baghouse(s) and cyclone(s) connected in series.

The reduced PE limitations were applied to PSD modeling requirements to demonstrate that PSD significant impact levels were not triggered.

2.b All PE is assumed to be PM₁₀.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 0.5-12.0 inches of water while the 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.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. These deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

1. Emissions Testing: The permittee shall conduct, or have conducted, emission testing for this emissions unit 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 mass allowable emission rate of 1.10 lb PE/hr.
 - c. The following test method shall be employed to demonstrate compliance with the

Issued

Emissions Unit ID: P034

requirements specified in A.V.2.b: for PE, Method 5 as specified in 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.
- e. The emissions testing shall also be conducted to demonstrate compliance with the allowable emission rate across the entire pressure drop range of 0.5-12 inches of water.

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

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

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

- 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: 1.10 lbs PE/hr, 4.82 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 the permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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.

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

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Issued: 4/3/2001

Emissions Unit ID: P034

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

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P034 - Line #34 Product Finishing Unit (modification) modification involves lowering emission limitation		

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

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Johns Manville International Inc.

PTI Application: **03 13522**

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Facility ID: **0320010004**

Emissions Unit ID: P034

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P035 - Line #35 Product Finishing Unit (modification) modification involves lowering emission limitation	OAC rule 3745-31-05(A)(3)	The requirement of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
		control requirements (See A.I.2.a)
		1.20 lbs particulate emissions (PE)/hr, 5.26 tons PE/yr (see A.I.2.b)
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity as a 6-minute average except as provided by rule.

2. Additional Terms and Conditions

- 2.a The BAT determination was made in accordance with OAC rule 3745-31-02(A)(2) from a request by the permittee to voluntarily lower allowable emissions of PE to federally enforceable limitations of 1.20 lbs per hour (this allowable emission limitation is consistent

with a 99% removal efficiency) and 5.26 tons per year based on the use of a control system consisting of baghouse(s) and cyclone(s) connected in series.

The reduced PE limitations were applied to PSD modeling requirements to demonstrate that PSD significant impact levels were not triggered.

2.b All PE is assumed to be PM₁₀.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 0.5-12.0 inches of water while the 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.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. These deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

1. Emissions Testing: The permittee shall conduct, or have conducted, emission testing for this emissions unit 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 mass allowable emission rate of 1.20 lbs PE/hr.
 - c. The following test method shall be employed to demonstrate compliance with the

requirements specified in A.V.2.b: for PE, Method 5 as specified in 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.
- e. The emissions testing shall also be conducted to demonstrate compliance with the allowable emission rate across the entire pressure drop range of 0.5-12 inches of water.

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

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

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

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: 1.20 lbs PE/hr, 5.26 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 the permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the

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Emissions Unit ID: P035

maximum operating schedule of 8760 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.

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

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

VI. Miscellaneous Requirements

None

B. State 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>
P035 - Line #35 Product Finishing Unit (modification) modification involves lowering emission limitation		

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

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Johns I

PTI A₁

Issued: 4/3/2001

Emissions Unit ID: P035

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P036 - Line #36 Product Finishing Unit (modification) modification involves lowering emission limitation	OAC rule 3745-31-05(A)(3)	The requirement of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). control requirements (See A.I.2.a) 1.40 lbs particulate emissions (PE)/hr, 6.13 tons PE/yr (see A.I.2.b)
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	Visible PE from the stack servicing this emissions unit shall not exceed 20% opacity as a 6-minute average except as provided by rule.

2. Additional Terms and Conditions

- 2.a The BAT determination was made in accordance with OAC rule 3745-31-02(A)(2) from a request by the permittee to voluntarily lower allowable emissions of PE to federally enforceable limitations of 1.40 lbs per hour (this allowable emission limitation is consistent

Issued

Emissions Unit ID: P036

with a 99% removal efficiency) and 6.13 tons per year based on the use of a control system consisting of baghouse(s) and cyclone(s) connected in series.

The reduced PE limitations were applied to PSD modeling requirements to demonstrate that PSD significant impact levels were not triggered.

2.b All PE is assumed to be PM₁₀.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 0.5-12.0 inches of water while the 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.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. These deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

1. Emissions Testing: The permittee shall conduct, or have conducted, emission testing for this emissions unit 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 mass allowable emission rate of 1.40 lbs PE/hr.
 - c. The following test method shall be employed to demonstrate compliance with the requirements specified in A.V.2.b: for PE, Method 5 as specified in 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.

- e. The emissions testing shall also be conducted to demonstrate compliance with the allowable emission rate across the entire pressure drop range of 0.5-12 inches of water.

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

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

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

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: 1.40 lbs PE/hr, 6.13 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 the permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 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.

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

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Johns Manville International Inc.

PTI Application: 03 13522

Issued

Facility ID: 0320010004

Emissions Unit ID: P036

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

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P036 - Line #36 Product Finishing Unit (modification) modification involves lowering emission limitation		

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 Manville International Inc.
 PTI Application: **03-13522**
 Issued: 4/3/2001

Facility ID: **0320010004**

Emissions Unit ID: P036

SIC CODE 3296 SCC CODE 3-05-017-99 EMISSIONS UNIT ID P003

EMISSIONS UNIT DESCRIPTION Handwrap Product Curing Unit #36

DATE INSTALLED 3/01/01

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 ₁₀	attainment	0.11	0.47	0.84	3.68
Sulfur Dioxide	attainment	0.01	0.06		
Organic Compounds	attainment	0.13	0.55	0.98	4.31
Nitrogen Oxides	attainment	0.06	0.23	0.41	1.81
Carbon Monoxide	attainment	0.06	0.23	0.41	1.79
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? _____ NESHAP? _____ PSD? **Y** _____ 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? yes
 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*? NNN YES NO

IDENTIFY THE AIR CONTAMINANTS: formaldehyde

NEW SOURCE REVIEW FORM B

PTI Number: 03-13522

Facility ID: 0320010004

FACILITY NAME Johns Manville International Inc.

FACILITY DESCRIPTION Increase of pine insulation manufacturing CITY/TWP Defiance

Emissions Unit ID: P036

SIC CODE 3296

SCC CODE

3-05-017-99

EMISSIONS UNIT ID

P040

EMISSIONS UNIT DESCRIPTION Handwrap Product Curing Unit #38

DATE INSTALLED

3/01/01

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 ₁₀	attainment	0.11	0.47	0.84	3.68
Sulfur Dioxide	attainment	0.01	0.06		
Organic Compounds	attainment	0.13	0.55	0.98	4.31
Nitrogen Oxides	attainment	0.06	0.23	0.41	1.81
Carbon Monoxide	attainment	0.06	0.23	0.41	1.79
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP?

PSD? Y

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?

yes

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*?

NNN

YES

NO

IDENTIFY THE AIR CONTAMINANTS:

formaldehyde

NEW SOURCE REVIEW FORM B

PTI Number: 03-13522

Facility ID: 0320010004

FACILITY NAME Johns Manville International Inc.

FACILITY DESCRIPTION Increase of pine insulation manufacturing CITY/TWP Defiance

Emissions Unit ID: P036

SIC CODE 3296

SCC CODE

3-05-017-99

EMISSIONS UNIT ID

P042

EMISSIONS UNIT DESCRIPTION Line #37 Forming and collection Unit

DATE INSTALLED

3/01/01

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 ₁₀	attainment	0.11	0.47	5.83	25.54
Sulfur Dioxide	attainment	0.01	0.06	1.22	5.34
Organic Compounds	attainment	0.13	0.55	1.81	7.93
Nitrogen Oxides	attainment	0.06	0.23	2.85	12.48
Carbon Monoxide	attainment	0.06	0.23	2.22	9.72
Lead					
Other: Air Toxics				0.48	2.10

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP?

PSD? Y

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?

yes

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*?

NNN

YES

NO

IDENTIFY THE AIR CONTAMINANTS:

formaldehyde

NEW SOURCE REVIEW FORM B

PTI Number: 03-13522

Facility ID: 0320010004

FACILITY NAME Johns Manville International Inc.

FACILITY DESCRIPTION Increase of pine insulation manufacturing CITY/TWP Defiance

Emissions Unit ID: P036

SIC CODE 3296

SCC CODE 3-05-017-99

EMISSIONS UNIT ID P043

EMISSIONS UNIT DESCRIPTION Line #37 Product Curing Unit

DATE INSTALLED 3-01-01

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 ₁₀	attainment			0.79	3.46
Sulfur Dioxide					
Organic Compounds	attainment			1.02	4.47
Nitrogen Oxides	attainment			1.67	7.32
Carbon Monoxide	attainment			2.22	9.72
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP?

PSD? Y

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? yes

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*? NNN YES NO

IDENTIFY THE AIR CONTAMINANTS: formaldehyde

NEW SOURCE REVIEW FORM B

PTI Number: 03-13522 Facility ID: 0320010004

FACILITY NAME Johns Manville International Inc.

FACILITY DESCRIPTION Increase of pine insulation manufacturing CITY/TWP Defiance

Emissions Unit ID: P036

SIC CODE 3296 SCC CODE 3-05-017-99 EMISSIONS UNIT ID P044

EMISSIONS UNIT DESCRIPTION Line #37 Product Finishing Unit

DATE INSTALLED 3/01/01

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 ₁₀	attainment	0.4	1.56	0.86	3.77
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? Y 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? no

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*? NNN YES NO

IDENTIFY THE AIR CONTAMINANTS:

NEW SOURCE REVIEW FORM B

PTI Number: 03-13522 Facility ID: 0320010004

FACILITY NAME Johns Manville International Inc.

FACILITY DESCRIPTION Increase of pine insulation manufacturing CITY/TWP Defiance

Emissions Unit ID: P036

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

EMISSIONS UNIT DESCRIPTION Handwrap Product Finishing Unit #36/38

DATE INSTALLED 3/01/01

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 ₁₀	attainment	0.48	1.78	0.43	1.88
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NPS? NESHAP? PSD? Y 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? no

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*? NNN YES NO

IDENTIFY THE AIR CONTAMINANTS:

NEW SOURCE REVIEW FORM B

PTI Number: 03-13522

Facility ID: 0320010004

FACILITY NAME Johns Manville International Inc.

FACILITY DESCRIPTION Increase of pine insulation manufacturing CITY/TWP Defiance

Emissions Unit ID: P036

SIC CODE 3296

SCC CODE 3-05-017-99

EMISSIONS UNIT ID P049

EMISSIONS UNIT DESCRIPTION Line #30 Product Curing Unit

DATE INSTALLED 3/01/01

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 ₁₀	attainment			0.53	2.30
Sulfur Dioxide					
Organic Compounds	attainment			0.67	2.92
Nitrogen Oxides	attainment			0.25	1.10
Carbon Monoxide	attainment			1.06	4.66
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP?

PSD? Y

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? yes

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*? NNN YES NOIDENTIFY THE AIR CONTAMINANTS: formaldehyde

NEW SOURCE REVIEW FORM B

PTI Number: 03-13522 Facility ID: 0320010004

FACILITY NAME Johns Manville International Inc.

FACILITY DESCRIPTION Increase of pine insulation manufacturing CITY/TWP Defiance

Emissions Unit ID: P036

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

EMISSIONS UNIT DESCRIPTION Line #30 Product Finishing Unit

DATE INSTALLED 3/01/01

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 ₁₀	attainment			0.86	3.77
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? Y 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? no

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*? NNN YES NO

IDENTIFY THE AIR CONTAMINANTS:

NEW SOURCE REVIEW FORM B

PTI Number: 03-13522 Facility ID: 0320010004

FACILITY NAME Johns Manville International Inc.

FACILITY DESCRIPTION Increase of pine insulation manufacturing CITY/TWP Defiance

Emissions Unit ID: P036

SIC CODE 3296 SCC CODE 3-05-017-99 EMISSIONS UNIT ID P051

EMISSIONS UNIT DESCRIPTION Line #38 Product Curing Unit

DATE INSTALLED 3/01/01

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 ₁₀	attainment			2.02	8.84
Sulfur Dioxide	attainment			0.34	1.51
Organic Compounds	attainment			2.56	11.21
Nitrogen Oxides	attainment			0.97	4.25
Carbon Monoxide	attainment			4.09	17.92
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? Y 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? yes

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*? NNN YES NO

IDENTIFY THE AIR CONTAMINANTS: formaldehyde

NEW SOURCE REVIEW FORM B

PTI Number: 03-13522 Facility ID: 0320010004

FACILITY NAME Johns Manville International Inc.

FACILITY DESCRIPTION Increase of pine insulation manufacturing CITY/TWP Defiance

Emissions Unit ID: P036

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

EMISSIONS UNIT DESCRIPTION Line #38 Product Finishing Unit

DATE INSTALLED 3/01/01

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 ₁₀	attainment	1.2	5.26	1.2	5.26
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? Y 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? no

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*? NNN YES NO

IDENTIFY THE AIR CONTAMINANTS:

NEW SOURCE REVIEW FORM B

PTI Number: 03-13522

Facility ID: 0320010004

FACILITY NAME Johns Manville International Inc.

FACILITY DESCRIPTION Increase of pipe insulation manufacturing

CITY/TWP Defiance

Emissions Unit ID: P036

SIC CODE 3296

SCC CODE 3-05-017-99

EMISSIONS UNIT ID P011

EMISSIONS UNIT DESCRIPTION Line #31 Product Forming and Collection Unit (MODIFICATION)

DATE INSTALLED 3/01/01

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 ₁₀	attainment	3.76		7.94	34.76
Sulfur Dioxide	attainment	0.47		0.99	4.35
Organic Compounds	attainment	1.14		2.4	10.53
Nitrogen Oxides	attainment	0.41		0.88	3.83
Carbon Monoxide	attainment	1.0		2.11	9.26
Lead					
Other: Air Toxics		0.22	0.91	0.39	1.71

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP?

PSD? Y

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? yes

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*?

NNN

YES

NO

IDENTIFY THE AIR CONTAMINANTS:

formaldehyde

NEW SOURCE REVIEW FORM B

PTI Number: 03-13522

Facility ID: 0320010004

FACILITY NAME Johns Manville International Inc.

FACILITY DESCRIPTION Increase of pipe insulation manufacturing

CITY/TWP Defiance

Emissions Unit ID: P036

SIC CODE 3296

SCC CODE 3-05-017-99

EMISSIONS UNIT ID P031

EMISSIONS UNIT DESCRIPTION Line #31 Product Finishing Unit (modification to lower allowable)

DATE INSTALLED 3/01/01

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 ₁₀	attainment			1.10	4.82
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NPSPS?

NESHAP?

PSD? Y

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?

no

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*?

NNN

YES

NO

IDENTIFY THE AIR CONTAMINANTS:

NEW SOURCE REVIEW FORM B

PTI Number: 03-13522

Facility ID: 0320010004

FACILITY NAME Johns Manville International Inc.

FACILITY DESCRIPTION Increase of pipe insulation manufacturing

CITY/TWP Defiance

Emissions Unit ID: P036

SIC CODE 3296

SCC CODE 3-05-017-99

EMISSIONS UNIT ID P032

EMISSIONS UNIT DESCRIPTION Line #32 Product Finishing Unit (modification to lower allowable emissions)

DATE INSTALLED 3/01/01

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 ₁₀	attainment			1.10	4.82
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NPSPS?

NESHAP?

PSD? Y

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?

no

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*?

NNN

YES

NO

IDENTIFY THE AIR CONTAMINANTS:

NEW SOURCE REVIEW FORM B

PTI Number: 03-13522 Facility ID: 0320010004

FACILITY NAME Johns Manville International Inc.

FACILITY DESCRIPTION Increase of pipe insulation manufacturing CITY/TWP Defiance

Emissions Unit ID: P036

SIC CODE 3296 SCC CODE 3-05-017-99 EMISSIONS UNIT ID P033

EMISSIONS UNIT DESCRIPTION Line #33 Product Finishing Unit (modification to lower allowable emissions)

DATE INSTALLED 3/01/01

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 ₁₀	attainment			1.10	4.82
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? **Y** 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? no
 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*? NNN YES NO

IDENTIFY THE AIR CONTAMINANTS: _____

NEW SOURCE REVIEW FORM B

PTI Number: 03-13522 Facility ID: 0320010004

FACILITY NAME Johns Manville International Inc.

FACILITY DESCRIPTION Increase of pipe insulation manufacturing CITY/TWP Defiance

Emissions Unit ID: P036

SIC CODE 3296 SCC CODE 3-05-017-99 EMISSIONS UNIT ID P034

EMISSIONS UNIT DESCRIPTION Line #34 Product Finishing Unit (modification to lower allowable emissions)

DATE INSTALLED 3/01/01

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 ₁₀	attainment			1.10	4.82
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NPSPS? NESHAP? PSD? **Y** 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? no
 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*? NNN YES NO

IDENTIFY THE AIR CONTAMINANTS: _____

NEW SOURCE REVIEW FORM B

PTI Number: 03-13522

Facility ID: 0320010004

FACILITY NAME Johns Manville International Inc.

FACILITY DESCRIPTION Increase of pipe insulation manufacturing

CITY/TWP Defiance

Emissions Unit ID: P036

SIC CODE 3296

SCC CODE 3-05-017-99

EMISSIONS UNIT ID P035

EMISSIONS UNIT DESCRIPTION Line #35 Product Finishing Unit (modification to lower allowable emissions)

DATE INSTALLED 3/01/01

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 ₁₀	attainment			1.20	5.26
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NPSPS?

NESHAP?

PSD? Y

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?

no

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*?

NNN

YES

NO

IDENTIFY THE AIR CONTAMINANTS:

NEW SOURCE REVIEW FORM B

PTI Number: 03-13522

Facility ID: 0320010004

FACILITY NAME Johns Manville International Inc.

FACILITY DESCRIPTION Increase of pipe insulation manufacturing

CITY/TWP Defiance

Emissions Unit ID: P036

SIC CODE 3296

SCC CODE 3-05-017-99

EMISSIONS UNIT ID P036

EMISSIONS UNIT DESCRIPTION Line #36 Product Finishing Unit (modification to lower allowable emissions)

DATE INSTALLED 3/01/01

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 ₁₀	attainment			1.40	6.13
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP?

PSD? **Y**

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?

no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT?

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TOXIC AIR CONTAMINANTS

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AIR TOXICS MODELING PERFORMED*?

NNN

YES

NO

IDENTIFY THE AIR CONTAMINANTS:

NEW SOURCE REVIEW FORM B

PTI Number: 03-13522

Facility ID: 0320010004

FACILITY NAME Johns Manville International Inc.

FACILITY DESCRIPTION Increase of pipe insulation manufacturing

CITY/TWP Defiance

Emissions Unit ID: P036

Ohio EPA Permit to Install Information Form Please describe below any documentation which is being submitted with this recommendation (must be sent the same day). Electronic items should be submitted with the e-mail transmitting the PTI terms, and in software that CO can utilize. If mailing any hard copy, this section must be printed as a cover page. All items must be clearly labeled indicating the PTI name and number. Submit **hard copy items to Pam McGraner**, AQM&P, DAPC, Central Office, and electronic files to **airpti@epa.state.oh.us**

Please fill out the following. If the checkbox does not work, replace it with an 'X'

	Electronic	<u>Additional information</u> File Name Convention (your PTI # plus this letter)	Hard Copy	None
<u>Calculations (required)</u>	<input type="checkbox"/>	0000000c.wpd	<input checked="" type="checkbox"/>	
Modeling form/results	<input type="checkbox"/>	0000000s.wpd	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PTI Application (complete or partial)*	<input type="checkbox"/>	0000000a.wpd	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BAT Study	<input type="checkbox"/>	0000000b.wpd	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other/misc.	<input type="checkbox"/>	0000000t.wpd	<input checked="" type="checkbox"/>	<input type="checkbox"/>

* Mandatory for netting, PSD, nonattainment NSR, 112(g), 21-07(G)(9)(g) and 21-09(U)(2)(f) - 2 complete copies.

Please complete (see comment bubble to the left for additional instructions):

NSR Discussion

See Permit Review Form

Please complete for these type permits (For PSD/NSR Permit, place mouse over this text):

Synthetic Minor Determination and/or **Netting Determination**
Permit To Install **ENTER PTI NUMBER HERE**

PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:

NONE

Please complete:

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PE	127.66 (*64.97)
OC	45.64
NOx	32.50
CO	54.84
SO ₂	11.17
Fluorides	3.81 (*1.16)

*net increase