



State of Ohio Environmental Protection Agency

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

CERTIFIED MAIL

Street Address:

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

Mailing Address:

Lazarus Gov.
Center

Application No: 01-08129

DATE: 2/8/2001

Buckeye Steel Castings Co
Kim Myers
2211 Parsons Ave
Columbus, OH 43207

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

CDO



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install

Issue Date: 2/8/2001

FINAL PERMIT TO INSTALL 01-08129

Application Number: 01-08129
APS Premise Number: 0125040020
Permit Fee: **\$2800**
Name of Facility: Buckeye Steel Castings Co
Person to Contact: Kim Myers
Address: 2211 Parsons Ave
Columbus, OH 43207

Location of proposed air contaminant source(s) [emissions unit(s)]:
2211 Parsons Ave
Columbus, Ohio

Description of proposed emissions unit(s):
No bake lines 1 through 7.

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 are inadequate 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 prove to be inadequate 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>
OC	35.7
PM	4.5

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

A.I.- VI.

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

B.III.

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 3745-17-08(B)
P046 - Phenolic-urethane coremaking line No 1 Modification of PTI 01-6338	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-11(A)(1)
		OAC rule 3745-15-06(D)
	OAC rule 3745-21-07(G)(2)	
	OAC rule 3745-17-07(A)	
	OAC rule 3745-17-07(B)	

Applicable Emissions
Limitations/Control
Measures

The organic compound emission rate shall not exceed 1.8 lb per hour and 5.1 ton per year. See A.I.2.b. and A.I.2.d. below.

Particulate emissions shall not exceed 0.06 pound per hour and 0.3 ton per year. See A.I.2.c. below.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)&(B), 3745-17-08(B) and 3745-15-06(D).

See A.I.2.a., below.

Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.

The permittee shall install reasonably available control measures to prevent fugitive

dust from becoming airborne. See A.I.2.c. and A.III.2. below.

See A.I.2.c. and A.III.2. below.

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

See A.III.2., below.

2. Additional Terms and Conditions

- 2.a** This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07 (G)(9)(h). See A.VI.1.
- 2.b** The 1.8 lb OC/hr and 0.06 lb PM/hr limitations were established for PTI purposes to reflect the potential to emit for this core making line. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.
- 2.c** The sand bin shall be vented to baghouse B-3657 from which the outlet loading shall not exceed 0.02 grains per dry standard cubic foot of airflow.
- 2.d** The terms in this permit supercede those identified in PTI 01-6338 issued October 30, 1996 and represent a net increase of 5.1 ton OC/yr from this emission unit.

II. Operational Restrictions

1. The pressure drop across baghouse B-3657 shall be maintained within the range of 2 to 10 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 B-3657 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 following in the operations log (Form 19, May 31, 1995):
 - a. pressure drop across the baghouse for each day of operation, and
 - b. a log or record of downtime for the control device and monitoring equipment, when the associated emissions unit is in operation.
2. The permittee shall maintain this emission units and associated air pollution control equipment in

Emissions Unit ID: P046

accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

The permittee shall maintain a daily record of the control device operation in the monitoring log for each day of emission unit operation, in accordance with procedures outlined in the PM&MAP (Page 55). The permittee shall record the presence of any visible particulate emissions from the capture points and stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be recorded in an operations log. If visible particulate emissions are observed, the permittee shall also record the following:

- a. whether the emissions are representative of normal operations;
 - b. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - c. the total duration of any visible emission incident; and
 - d. any corrective actions taken to eliminate the visible emissions.
3. The permittee shall maintain monthly records of the following information for the purpose of determining annual organic compound emissions:
- a. summation of the cumulative daily sand usage for each month, in tons;
 - b. monthly OC emission rate calculated by multiplying the cumulative daily sand usages in tons times the OCMA emission factor of 1.17 pound OC/ton of sand; and
 - c. annual OC emission rate based on the 12-month summation of the monthly OC emissions in tons.

IV. Reporting Requirements

1. In accordance with paragraph A.2.b. of the General Terms and Conditions the permittee shall submit quarterly deviation(excursion) reports for the following:
 - a. all exceedances during which the pressure drop across the fabric filter did not comply with the allowable range specified in restriction A.II.1., above, and any actions taken to return the pressure drop to a compliant operating range;
 - b. any exceedance of the visible particulate emission limitation specified in A.I.1. above, as determined through monitoring in A.III.2. above; and
 - c. all exceedances of the cumulative twelve-month OC emission limitation, as specified in

A.I.1. and determined through record keeping in A.III.3., above.

V. Testing Requirements

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

- a. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in section A.III.2. of this permit and OAC rule 3745-17-03(B)(1).

- b. Emission Limitation:

Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in section A.III.2. of this permit and OAC rule 3745-17-03(B)(4).

- c. Emission Limitation:

The organic compound emission rate shall not exceed 1.8 pound per hour

Applicable Compliance Method:

Compliance shall be based upon the following equation-

$$1.5 \text{ ton sand/hr} * 1.17 \text{ OC/ton sand (OCMA emission factor, Ohio EPA Memo 2/16/98)} \\ = 1.8 \text{ lb OC/hr}$$

d. Emission Limitation:

The organic compound emission rate shall not exceed 5.1 tons per year

Applicable Compliance Method:

Compliance shall be based upon the cumulative 12 month emission rate determined monthly, in accordance with the Monitoring and Recordkeeping requirements in Section A.III.3.c.

$$8,725 \text{ ton sand/yr} * 1.17 \text{ pounds per ton} * 1 \\ \text{ton}/2000 \text{ pounds} = 5.1 \text{ ton OC/yr}$$

e. Emission Limitation:

Particulate emissions shall not exceed 0.06 pound per hour.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with requirements specified for P045 in PTI 01-08062 issued 2/16/00.

$$0.02 \text{ gr/dscf} * 375 \text{ acf/min} * 60 \text{ min/ 1 hr} * 1 \\ \text{lb}/7,000 \text{ gr} = 0.06 \text{ lb/hr}$$

f. Emission Limitation:

Particulate emissions shall not exceed 0.26 tons per year

Applicable Compliance Method:

Compliance shall be determined by monitoring under A.III. 1. and by multiplying the hourly particulate emission rate times

Buckeye Steel Castings Co
PTI Application: 01 00130
Issued

Facility ID: 0125040020

Emissions Unit ID: P046

8,760hours of operation.

$0.06 \text{ lb PM/hr} * 8,760 \text{ hr/yr} * 1 \text{ ton}/2,000 \text{ lb}$
 $= 0.26 \text{ ton PM/yr}$

VI. Miscellaneous Requirements

1. This exemption was adopted by the Director of the Ohio EPA and became effective June 15, 1999. The USEPA has agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of this rule as revision to the Ohio SIP for ozone.

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>
P046 - Phenolic-urethane coremaking line No 1 Modification of PTI 01-6338	OAC rule 3745-31-05	

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 emissions unit P046 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Napthalene

TLV (mg/m³): 79

Maximum Hourly Emission Rate (lbs/hr): 0.21 lb/hr

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 386

MAGLC (ug/m³): 1,880

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.).

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.

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>	
P047 - Phenolic-urethane coremaking line No 2 Modification of PTI 01-6338	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-08(B)
		OAC rule 3745-17-11(A)(1)
		OAC rule 3745-15-06(D)
	OAC rule 3745-21-07(G)(2)	
	OAC rule 3745-17-07(A)	
	OAC rule 3745-17-07(B)	

Applicable Emissions
Limitations/Control
Measures

The organic compound emission rate shall not exceed 1.8 lb per hour and 5.1 ton per year. See A.I.2.b. and A.I.2.d. below.

Particulate emissions shall not exceed 0.15 pound per hour and 0.7 ton per year. See A.I.2.c. below.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)&(B), 3745-17-08(B) and 3745-15-06(D).

See A.I.2.a., below.

Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.

The permittee shall install reasonably available control measures to prevent fugitive

dust from becoming airborne. See A.I.2.c. and A.III.2. below.

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

See A.III.2., below.

2. Additional Terms and Conditions

- 2.a** This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07 (G)(9)(h). See A.VI.1.
- 2.b** The 1.8 lb OC/hr and 0.15 lb PM/hr limitations were established for PTI purposes to reflect the potential to emit for this core making line. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.
- 2.c** The sand bin shall be vented to baghouse B-3657 from which the outlet loading shall not exceed 0.02 grains per dry standard cubic foot of airflow.
- 2.d** The terms in this permit supercede those identified in PTI 01-6338 issued October 30, 1996 and represent a net increase of 5.1 ton OC/yr from this emission unit.

II. Operational Restrictions

1. The pressure drop across baghouse B-3657 shall be maintained within the range of 2 to 10 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 B-3657 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 following in the operations log (Form 19, May 31, 1995):

- a. pressure drop across the baghouse for each day of operation, and
- b. a log or record of downtime for the control device and monitoring equipment, when the associated emissions unit is in operation.

Emissions Unit ID: P047

2. The permittee shall maintain this emission units and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

The permittee shall maintain a daily record of the control device operation in the monitoring log for each day of emission unit operation, in accordance with procedures outlined in the PM&MAP (Page 55). The permittee shall record the presence of any visible particulate emissions from the capture points and stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be recorded in an operations log. If visible particulate emissions are observed, the permittee shall also record the following:

- a. whether the emissions are representative of normal operations;
- b. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- c. the total duration of any visible emission incident; and
- d. any corrective actions taken to eliminate the visible emissions.

3. The permittee shall maintain monthly records of the following information for the purpose of determining annual organic compound emissions:

- a. summation of the cumulative daily sand usage for each month, in tons;
- b. monthly OC emission rate calculated by multiplying the cumulative daily sand usages in tons times the OCMA emission factor of 1.17 pound OC/ton of sand; and
- c. annual OC emission rate based on the 12-month summation of the monthly OC emissions in tons.

IV. Reporting Requirements

1. In accordance with paragraph A.2.b. of the General Terms and Conditions the permittee shall submit quarterly deviation(excursion) reports for the following:

- a. all exceedances during which the pressure drop across the fabric filter did not comply with the allowable range specified in restriction A.II.1., above, and any actions taken to return the pressure drop to a compliant operating range;
- b. any exceedance of the visible particulate emission limitation specified in A.I.1., as determined through monitoring in A.III.2.. above; and

- c. all exceedances of the cumulative twelve-month OC emission limitation as specified in A.I.1., as determined through record keeping in A.III.3. above.

V. Testing Requirements

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

a. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in section A.III.2. of this permit and OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in section A.III.2. of this permit and OAC rule 3745-17-03(B)(4).

c. Emission Limitation:

The organic compound emission rate shall not exceed 1.8 pound per hour

Applicable Compliance Method:

Compliance shall be based upon the following equation-
 $1.5 \text{ ton sand/hr} * 1.17 \text{ OC/ton sand (OCMA emission factor - Ohio EPA Memo 2/16/98)}$
 $= 1.8 \text{ lb OC/hr}$

Emissions Unit ID: P047

d. Emission Limitation:

The organic compound emission rate shall not exceed 5.1 tons per year

Applicable Compliance Method:

Compliance shall be based upon the cumulative 12 month emission rate determined monthly, in accordance with the Monitoring and Recordkeeping requirements in Section A.III.3.c.

$8,725 \text{ ton sand/yr} * 1.17 \text{ pounds per ton} * 1 \text{ ton}/2000 \text{ pounds} = 5.1 \text{ ton OC/yr}$

e. Emission Limitation:

Particulate emissions shall not exceed 0.15 lb PM/hr.

Applicable Compliance Method:

The permittee conducted emission testing on March 9, 1999 on outlet of baghouse B-3700 resulting in an outlet loading of 0.006 grains/dscf.

$0.02 \text{ gr/dscf} * 865 \text{ acf/min} * 60 \text{ min}/1 \text{ hr} * 1 \text{ lb}/7,000 \text{ gr} = 0.15 \text{ lb/hr}$

f. Emission Limitation:

Particulate emissions shall not exceed 0.7 tons per year

Applicable Compliance Method:

Compliance shall be determined by monitoring under A.III. 1. and by multiplying the hourly particulate emission rate times 8,760 hours of operation.

$0.15 \text{ lb PM/hr} * 8,760 \text{ hr/yr} * 1 \text{ ton}/2,000 \text{ lb}$
 $= 0.7 \text{ ton PM/yr.}$

VI. Miscellaneous Requirements

1. This exemption was adopted by the Director of the Ohio EPA and became effective June 15, 1999. The USEPA has agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of this rule as revision to the Ohio SIP for ozone.

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P047 - Phenolic-urethane coremaking line No 2 Modification of PTI 01-6338	OAC rule 3745-31-05	

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 emissions unit P052 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Napthalene

TLV (mg/m³): 79

Maximum Hourly Emission Rate (lbs/hr): 0.21

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 386

MAGLC (ug/m³): 1,880

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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

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>	
P048 - Phenolic-urethane coremaking line No 3 Modification of PTI 01-6338	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-08(B)
		OAC rule 3745-17-11(A)(1)
		OAC rule 3745-15-06(D)
	OAC rule 3745-21-07(G)(2)	
	OAC rule 3745-17-07(A)	
	OAC rule 3745-17-07(B)	

Applicable Emissions
Limitations/Control
Measures

The organic compound emission rate shall not exceed 1.8 lb per hour and 5.1 ton per year. See A.I.2.b. and A.I.2.d. below.

Particulate emissions shall not exceed 0.15 pound per hour and 0.7 ton per year. See A.I.2.c. below.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)&(B), 3745-17-08(B) and 3745-15-06(D).

See A.I.2.a., below.

Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.

The permittee shall install reasonably available control measures to prevent fugitive

dust from becoming airborne. See A.I.2.c. and A.III.2. below.

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

See A.III.2., below.

2. Additional Terms and Conditions

- 2.a** This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07 (G)(9)(h). See A.VI.1.
- 2.b** The 1.8 lb OC/hr and 0.15 lb PM/hr limitations were established for PTI purposes to reflect the potential to emit for this core making line. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.
- 2.c** The sand bin shall be vented to baghouse B-3657 from which the outlet loading shall not exceed 0.02 grains per dry standard cubic foot of airflow.
- 2.d** The terms in this permit supercede those identified in PTI 01-6338 issued October 30, 1996 and represent a net increase of 5.1 ton OC/yr from this emission unit.

II. Operational Restrictions

1. The pressure drop across baghouse B-3657 shall be maintained within the range of 2 to 10 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 B-3657 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 following in the operations log (Form 19, May 31, 1995):
 - a. pressure drop across the baghouse for each day of operation, and
 - b. a log or record of downtime for the control device and monitoring equipment, when the associated emissions unit is in operation.
2. The permittee shall maintain this emission units and associated air pollution control equipment in

Emissions Unit ID: P048

accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

The permittee shall maintain a daily record of the control device operation in the monitoring log for each day of emission unit operation, in accordance with procedures outlined in the PM&MAP (Page 55). The permittee shall record the presence of any visible particulate emissions from the capture points and stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be recorded in an operations log. If visible particulate emissions are observed, the permittee shall also record the following:

- a. whether the emissions are representative of normal operations;
 - b. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - c. the total duration of any visible emission incident; and
 - d. any corrective actions taken to eliminate the visible emissions.
3. The permittee shall maintain monthly records of the following information for the purpose of determining annual organic compound emissions:
- a. summation of the cumulative daily sand usage for each month, in tons;
 - b. monthly OC emission rate calculated by multiplying the cumulative daily sand usages in tons times the OCMA emission factor of 1.17 pound OC/ton of sand; and
 - c. annual OC emission rate based on the 12-month summation of the monthly OC emissions in tons.

IV. Reporting Requirements

1. In accordance with paragraph A.2.b. of the General Terms and Conditions the permittee shall submit quarterly deviation(excursion) reports for the following:
 - a. all exceedances during which the pressure drop across the fabric filter did not comply with the allowable range specified in restriction A.II.1., above, and any actions taken to return the pressure drop to a compliant operating range;
 - b. any exceedance of the visible particulate emission limitation specified in A.I.1., as determined through monitoring in A.III.2.. above; and

- c. all exceedances of the cumulative twelve-month OC emission limitation as specified in A.I.1., as determined through record keeping in A.III.3. above.

V. Testing Requirements

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

a. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in section A.III.2. of this permit and OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in section A.III.2. of this permit and OAC rule 3745-17-03(B)(4).

c. Emission Limitation:

The organic compound emission rate shall not exceed 1.8 pound per hour

Applicable Compliance Method:

Compliance shall be based upon the following equation-

$1.5 \text{ ton sand/hr} * 1.17 \text{ OC/ton sand (OCMA emission factor - Ohio EPA Memo 2/16/98)}$
 $= 1.8 \text{ lb OC/hr}$

Emissions Unit ID: P048

d. Emission Limitation:

The organic compound emission rate shall not exceed 5.1 tons per year

Applicable Compliance Method:
Compliance shall be based upon the cumulative 12 month emission rate determined monthly, in accordance with the Monitoring and Recordkeeping requirements in Section A.III.3.c.
 $8,725 \text{ ton sand/yr} * 1.17 \text{ pounds per ton} * 1 \text{ ton}/2000 \text{ pounds} = 5.1 \text{ ton OC/yr}$

e. Emission Limitation:

Particulate emissions shall not exceed 0.15 lb PM/hr.

Applicable Compliance Method:
The permittee conducted emission testing on March 9, 1999 on outlet of baghouse B-3700 resulting in an outlet loading of 0.006 grains/dscf.
 $0.02 \text{ gr/dscf} * 865 \text{ acf/min} * 60 \text{ min}/1 \text{ hr} * 1 \text{ lb}/7,000 \text{ gr} = 0.15 \text{ lb/hr}$

f. Emission Limitation:

Particulate emissions shall not exceed 0.7 tons per year

Applicable Compliance Method:
Compliance shall be determined by monitoring under A.III. 1. and by multiplying the hourly particulate emission rate times 8,760 hours of operation.
 $0.15 \text{ lb PM/hr} * 8,760 \text{ hr/yr} * 1 \text{ ton}/2,000 \text{ lb} = 0.7 \text{ ton PM/yr.}$

VI. Miscellaneous Requirements

1. This exemption was adopted by the Director of the Ohio EPA and became effective June 15, 1999. The USEPA has agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of this rule as revision to the Ohio SIP for ozone.

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 - Phenolic-urethane coremaking line No 3 Modification of PTI 01-6338	OAC rule 3745-31-05	LIMIT(s)

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 emissions unit P052 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Napthalene

TLV (mg/m³): 79

Maximum Hourly Emission Rate (lbs/hr): 0.21

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 386

MAGLC (ug/m³): 1,880

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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

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>	
P049 - Phenolic-urethane coremaking line No 4 Modification of PTI 01-6338	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-08(B)
		OAC rule 3745-17-11(A)(1)
		OAC rule 3745-15-06(D)
	OAC rule 3745-21-07(G)(2)	
	OAC rule 3745-17-07(A)	
	OAC rule 3745-17-07(B)	

Applicable Emissions
Limitations/Control
Measures

The organic compound emission rate shall not exceed 1.8 lb per hour and 5.1 ton per year. See A.I.2.b. and A.I.2.d. below.

Particulate emissions shall not exceed 0.15 pound per hour and 0.7 ton per year. See A.I.2.c. below.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)&(B), 3745-17-08(B) and 3745-15-06(D).

See A.I.2.a., below.

Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.

The permittee shall install reasonably available control measures to prevent fugitive

dust from becoming airborne. See A.I.2.c. and A.III.2. below.

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

See A.III.2., below.

2. Additional Terms and Conditions

- 2.a** This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07 (G)(9)(h). See A.VI.1.
- 2.b** The 1.8 lb OC/hr and 0.15 lb PM/hr limitations were established for PTI purposes to reflect the potential to emit for this core making line. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.
- 2.c** The sand bin shall be vented to baghouse B-3657 from which the outlet loading shall not exceed 0.02 grains per dry standard cubic foot of airflow.
- 2.d** The terms in this permit supercede those identified in PTI 01-6338 issued October 30, 1996 and represent a net increase of 5.1 ton OC/yr from this emission unit.

II. Operational Restrictions

1. The pressure drop across baghouse B-3657 shall be maintained within the range of 2 to 10 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 B-3657 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 following in the operations log (Form 19, May 31, 1995):

- a. pressure drop across the baghouse for each day of operation, and
- b. a log or record of downtime for the control device and monitoring equipment, when the associated emissions unit is in operation.

Emissions Unit ID: P049

2. The permittee shall maintain this emission units and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

The permittee shall maintain a daily record of the control device operation in the monitoring log for each day of emission unit operation, in accordance with procedures outlined in the PM&MAP (Page 55). The permittee shall record the presence of any visible particulate emissions from the capture points and stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be recorded in an operations log. If visible particulate emissions are observed, the permittee shall also record the following:

- a. whether the emissions are representative of normal operations;
- b. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- c. the total duration of any visible emission incident; and
- d. any corrective actions taken to eliminate the visible emissions.

3. The permittee shall maintain monthly records of the following information for the purpose of determining annual organic compound emissions:

- a. summation of the cumulative daily sand usage for each month, in tons;
- b. monthly OC emission rate calculated by multiplying the cumulative daily sand usages in tons times the OCMA emission factor of 1.17 pound OC/ton of sand; and
- c. annual OC emission rate based on the 12-month summation of the monthly OC emissions in tons.

IV. Reporting Requirements

1. In accordance with paragraph A.2.b. of the General Terms and Conditions the permittee shall submit quarterly deviation(excursion) reports for the following:
 - a. all exceedances during which the pressure drop across the fabric filter did not comply with the allowable range specified in restriction A.II.1., above, and any actions taken to return the pressure drop to a compliant operating range;
 - b. any exceedance of the visible particulate emission limitation specified in A.I.1., as determined through monitoring in A.III.2.. above; and

- c. all exceedances of the cumulative twelve-month OC emission limitation as specified in A.I.1., as determined through record keeping in A.III.3. above.

V. Testing Requirements

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

a. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in section A.III.2. of this permit and OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in section A.III.2. of this permit and OAC rule 3745-17-03(B)(4).

c. Emission Limitation:

The organic compound emission rate shall not exceed 1.8 pound per hour

Applicable Compliance Method:

Compliance shall be based upon the following equation-

$1.5 \text{ ton sand/hr} * 1.17 \text{ OC/ton sand (OCMA emission factor - Ohio EPA Memo 2/16/98)}$
 $= 1.8 \text{ lb OC/hr}$

Emissions Unit ID: P049

d. Emission Limitation:

The organic compound emission rate shall not exceed 5.1 tons per year

Applicable Compliance Method:
Compliance shall be based upon the cumulative 12 month emission rate determined monthly, in accordance with the Monitoring and Recordkeeping requirements in Section A.III.3.c.
 $8,725 \text{ ton sand/yr} * 1.17 \text{ pounds per ton} * 1 \text{ ton}/2000 \text{ pounds} = 5.1 \text{ ton OC/yr}$

e. Emission Limitation:

Particulate emissions shall not exceed 0.15 lb PM/hr.

Applicable Compliance Method:
The permittee conducted emission testing on March 9, 1999 on outlet of baghouse B-3700 resulting in an outlet loading of 0.006 grains/dscf.
 $0.02 \text{ gr/dscf} * 865 \text{ acf/min} * 60 \text{ min}/1 \text{ hr} * 1 \text{ lb}/7,000 \text{ gr} = 0.15 \text{ lb/hr}$

f. Emission Limitation:

Particulate emissions shall not exceed 0.7 tons per year

Applicable Compliance Method:
Compliance shall be determined by monitoring under A.III. 1. and by multiplying the hourly particulate emission rate times 8,760 hours of operation.
 $0.15 \text{ lb PM/hr} * 8,760 \text{ hr/yr} * 1 \text{ ton}/2,000 \text{ lb} = 0.7 \text{ ton PM/yr.}$

VI. Miscellaneous Requirements

1. This exemption was adopted by the Director of the Ohio EPA and became effective June 15, 1999. The USEPA has agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of this rule as revision to the Ohio SIP for ozone.

Issued: 2/8/2001

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 - Phenolic-urethane coremaking line No 4 Modification of PTI 01-6338	OAC rule 3745-31-05	LIMIT(s)

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 emissions unit P052 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Napthalene

TLV (mg/m3): 79

Maximum Hourly Emission Rate (lbs/hr): 0.21

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 386

MAGLC (ug/m³): 1,880

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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

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>	
P050 - Phenolic-urethane coremaking line No 5 Modification of PTI 01-6338	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-08(B)
		OAC rule 3745-17-11(A)(1)
		OAC rule 3745-15-06(D)
	OAC rule 3745-21-07(G)(2)	
	OAC rule 3745-17-07(A)	
	OAC rule 3745-17-07(B)	

Applicable Emissions
Limitations/Control
Measures

The organic compound emission rate shall not exceed 1.8 lb per hour and 5.1 ton per year. See A.I.2.b. and A.I.2.d. below.

Particulate emissions shall not exceed 0.15 pound per hour and 0.7 ton per year. See A.I.2.c. below.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)&(B), 3745-17-08(B) and 3745-15-06(D).

See A.I.2.a., below.

Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.

The permittee shall install reasonably available control measures to prevent fugitive

dust from becoming airborne. See A.I.2.c. and A.III.2. below.

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

See A.III.2., below.

Issued: 2/8/2001**2. Additional Terms and Conditions**

- 2.a** This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07 (G)(9)(h). See A.VI.1.
- 2.b** The 1.8 lb OC/hr and 0.15 lb PM/hr limitations were established for PTI purposes to reflect the potential to emit for this core making line. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.
- 2.c** The sand bin shall be vented to baghouse B-3700 from which the outlet loading shall not exceed 0.02 grains per dry standard cubic foot of airflow.
- 2.d** The terms in this permit supercede those identified in PTI 01-6338 issued October 30, 1996 and represent a net increase of 5.1 ton OC/yr from this emission unit.

II. Operational Restrictions

1. The pressure drop across baghouse B-3700 shall be maintained within the range of 2 to 10 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 B-3700 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 following in the operations log (Form 20, 12/94):
 - a. pressure drop across the baghouse for each day of operation, and
 - b. a log or record of downtime for the control device and monitoring equipment, when the associated emissions unit is in operation.
2. The permittee shall maintain this emission units and associated air pollution control equipment in

Emissions Unit ID: P050

accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

The permittee shall maintain a daily record of the control device operation in the monitoring log for each day of emission unit operation, in accordance with procedures outlined in the PM&MAP (Page 55). The permittee shall record the presence of any visible particulate emissions from the capture points and stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be recorded in an operations log. If visible particulate emissions are observed, the permittee shall also record the following:

- a. whether the emissions are representative of normal operations;
 - b. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - c. the total duration of any visible emission incident; and
 - d. any corrective actions taken to eliminate the visible emissions.
3. The permittee shall maintain monthly records of the following information for the purpose of determining annual organic compound emissions:
- a. summation of the cumulative daily sand usage for each month, in tons;
 - b. monthly OC emission rate calculated by multiplying the cumulative daily sand usages in tons times the OCMA emission factor of 1.17 pound OC/ton of sand; and
 - c. annual OC emission rate based on the 12-month summation of the monthly OC emissions in tons.

IV. Reporting Requirements

1. In accordance with paragraph A.2.b. of the General Terms and Conditions the permittee shall submit quarterly deviation(excursion) reports for the following:
 - a. all exceedances during which the pressure drop across the fabric filter did not comply with the allowable range specified in restriction A.II.1., above, and any actions taken to return the pressure drop to a compliant operating range;
 - b. any exceedance of the visible particulate emission limitation specified in A.I.1., as determined through monitoring in A.III.2.. above; and

- c. all exceedances of the cumulative twelve-month OC emission limitation as specified in A.I.1., as determined through record keeping in A.III.3. above.

V. Testing Requirements

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

a. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in section A.III.2. of this permit and OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in section A.III.2. of this permit and OAC rule 3745-17-03(B)(4).

c. Emission Limitation:

The organic compound emission rate shall not exceed 1.8 pound per hour

Applicable Compliance Method:

Compliance shall be based upon the following equation-
 $1.5 \text{ ton sand/hr} * 1.17 \text{ OC/ton sand (OCMA emission factor - Ohio EPA Memo 2/16/98)}$
 $= 1.8 \text{ lb OC/hr}$

d. Emission Limitation:

Emissions Unit ID: P050

The organic compound emission rate shall not exceed 5.1 tons per year

Applicable Compliance Method:
 Compliance shall be based upon the cumulative 12 month emission rate determined monthly, in accordance with the Monitoring and Recordkeeping requirements in Section A.III.3.c.
 $8,725 \text{ ton sand/yr} * 1.17 \text{ pounds per ton} * 1 \text{ ton}/2000 \text{ pounds} = 5.1 \text{ ton OC/yr}$

e. Emission Limitation:

Particulate emissions shall not exceed 0.15 lb PM/hr.

Applicable Compliance Method:
 The permittee conducted emission testing on March 9, 1999 on outlet of baghouse B-3700 resulting in an outlet loading of 0.006 grains/dscf.
 $0.02 \text{ gr/dscf} * 865 \text{ acf/min} * 60 \text{ min}/1 \text{ hr} * 1 \text{ lb}/7,000 \text{ gr} = 0.15 \text{ lb/hr}$

f. Emission Limitation:

Particulate emissions shall not exceed 0.7 tons per year

Applicable Compliance Method:
 Compliance shall be determined by monitoring under A.III. 1. and by multiplying the hourly particulate emission rate times 8,760 hours of operation.
 $0.15 \text{ lb PM/hr} * 8,760 \text{ hr/yr} * 1 \text{ ton}/2,000 \text{ lb} = 0.7 \text{ ton PM/yr.}$

VI. Miscellaneous Requirements

1. This exemption was adopted by the Director of the Ohio EPA and became effective June 15, 1999. The USEPA has agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of this rule as revision to the Ohio SIP for ozone.

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 - Phenolic-urethane coremaking line No 5 Modification of PTI 01-6338	OAC rule 3745-31-05	LIMIT(s)

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 emissions unit P052 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Napthalene

TLV (mg/m³): 79

Maximum Hourly Emission Rate (lbs/hr): 0.21

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 386

MAGLC (ug/m³): 1,880

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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

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>	
P051 - Phenolic-urethane coremaking line No 6 Modification of PTI 01-6338	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-08(B)
		OAC rule 3745-17-11(A)(1)
		OAC rule 3745-15-06(D)
	OAC rule 3745-21-07(G)(2)	
	OAC rule 3745-17-07(A)	
	OAC rule 3745-17-07(B)	

Applicable Emissions
Limitations/Control
Measures

The organic compound emission rate shall not exceed 1.8 lb per hour and 5.1 ton per year. See A.I.2.b. and A.I.2.d. below.

Particulate emissions shall not exceed 0.15 pound per hour and 0.7 ton per year. See A.I.2.c. below.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)&(B), 3745-17-08(B) and 3745-15-06(D).

See A.I.2.a., below.

Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.

The permittee shall install reasonably available control measures to prevent fugitive

dust from becoming airborne. See A.I.2.c. and A.III.2. below.

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

See A.III.2., below.

2. Additional Terms and Conditions

- 2.a** This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07 (G)(9)(h). See A.VI.1.
- 2.b** The 1.8 lb OC/hr and 0.15 lb PM/hr limitations were established for PTI purposes to reflect the potential to emit for this core making line. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.
- 2.c** The sand bin shall be vented to baghouse B-3700 from which the outlet loading shall not exceed 0.02 grains per dry standard cubic foot of airflow.
- 2.d** The terms in this permit supercede those identified in PTI 01-6338 issued October 30, 1996 and represent a net increase of 5.1 ton OC/yr from this emission unit.

II. Operational Restrictions

1. The pressure drop across baghouse B-3700 shall be maintained within the range of 2 to 10 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 B-3700 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 following in the operations log (Form 20, 12/94):
 - a. pressure drop across the baghouse for each day of operation, and
 - b. a log or record of downtime for the control device and monitoring equipment, when the associated emissions unit is in operation.
2. The permittee shall maintain this emission units and associated air pollution control equipment in

Emissions Unit ID: P051

accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

The permittee shall maintain a daily record of the control device operation in the monitoring log for each day of emission unit operation, in accordance with procedures outlined in the PM&MAP (Page 55). The permittee shall record the presence of any visible particulate emissions from the capture points and stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be recorded in an operations log. If visible particulate emissions are observed, the permittee shall also record the following:

- a. whether the emissions are representative of normal operations;
 - b. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - c. the total duration of any visible emission incident; and
 - d. any corrective actions taken to eliminate the visible emissions.
3. The permittee shall maintain monthly records of the following information for the purpose of determining annual organic compound emissions:
- a. summation of the cumulative daily sand usage for each month, in tons;
 - b. monthly OC emission rate calculated by multiplying the cumulative daily sand usages in tons times the OCMA emission factor of 1.17 pound OC/ton of sand; and
 - c. annual OC emission rate based on the 12-month summation of the monthly OC emissions in tons.

IV. Reporting Requirements

1. In accordance with paragraph A.2.b. of the General Terms and Conditions the permittee shall submit quarterly deviation(excursion) reports for the following:
 - a. all exceedances during which the pressure drop across the fabric filter did not comply with the allowable range specified in restriction A.II.1., above, and any actions taken to return the pressure drop to a compliant operating range;
 - b. any exceedance of the visible particulate emission limitation specified in A.I.1., as determined through monitoring in A.III.2.. above; and

- c. all exceedances of the cumulative twelve-month OC emission limitation as specified in A.I.1., as determined through record keeping in A.III.3. above.

V. Testing Requirements

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

a. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in section A.III.2. of this permit and OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in section A.III.2. of this permit and OAC rule 3745-17-03(B)(4).

c. Emission Limitation:

The organic compound emission rate shall not exceed 1.8 pound per hour

Applicable Compliance Method:

Compliance shall be based upon the following equation-
 $1.5 \text{ ton sand/hr} * 1.17 \text{ OC/ton sand (OCMA emission factor - Ohio EPA Memo 2/16/98)}$
 $= 1.8 \text{ lb OC/hr}$

Emissions Unit ID: P051

d. Emission Limitation:

The organic compound emission rate shall not exceed 5.1 tons per year

Applicable Compliance Method:

Compliance shall be based upon the cumulative 12 month emission rate determined monthly, in accordance with the Monitoring and Recordkeeping requirements in Section A.III.3.c.

$8,725 \text{ ton sand/yr} * 1.17 \text{ pounds per ton} * 1 \text{ ton}/2000 \text{ pounds} = 5.1 \text{ ton OC/yr}$

e. Emission Limitation:

Particulate emissions shall not exceed 0.15 lb PM/hr.

Applicable Compliance Method:

The permittee conducted emission testing on March 9, 1999 on outlet of baghouse B-3700 resulting in an outlet loading of 0.006 grains/dscf.

$0.02 \text{ gr/dscf} * 865 \text{ acf/min} * 60 \text{ min}/1 \text{ hr} * 1 \text{ lb}/7,000 \text{ gr} = 0.15 \text{ lb/hr}$

f. Emission Limitation:

Particulate emissions shall not exceed 0.7 tons per year

Applicable Compliance Method:
Compliance shall be determined by monitoring under A.III. 1. and by multiplying the hourly particulate emission rate times 8,760 hours of operation.
 $0.15 \text{ lb PM/hr} * 8,760 \text{ hr/yr} * 1 \text{ ton}/2,000 \text{ lb} = 0.7 \text{ ton PM/yr.}$

VI. Miscellaneous Requirements

1. This exemption was adopted by the Director of the Ohio EPA and became effective June 15, 1999. The USEPA has agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of this rule as revision to the Ohio SIP for ozone.

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 - Phenolic-urethane coremaking line No 6 Modification of PTI 01-6338	OAC rule 3745-31-05	LIMIT(s)

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 emissions unit P052 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Napthalene

TLV (mg/m³): 79

Maximum Hourly Emission Rate (lbs/hr): 0.21

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 386

MAGLC (ug/m³): 1,880

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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

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>	
P052 - Phenolic-urethane coremaking line No 7 Modification of PTI 01-6338	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-08(B)
		OAC rule 3745-17-11(A)(1)
		OAC rule 3745-15-06(D)
	OAC rule 3745-21-07(G)(2)	
	OAC rule 3745-17-07(A)	
	OAC rule 3745-17-07(B)	

Applicable Emissions
Limitations/Control
Measures

The organic compound emission rate shall not exceed 1.8 lb per hour and 5.1 ton per year. See A.I.2.b. and A.I.2.d. below.

Particulate emissions shall not exceed 0.15 pound per hour and 0.7 ton per year. See A.I.2.c. below.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)&(B), 3745-17-08(B) and 3745-15-06(D).

See A.I.2.a., below.

Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.

The permittee shall install reasonably available control measures to prevent fugitive

dust from becoming airborne.
 See A.I.2.c. and A.III.2. below.

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

See A.III.2., below.

2. Additional Terms and Conditions

- 2.a** This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07 (G)(9)(h). See A.VI.1.
- 2.b** The 1.8 lb OC/hr and 0.15 lb PM/hr limitations were established for PTI purposes to reflect the potential to emit for this core making line. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.
- 2.c** The sand bin shall be vented to baghouse B-3700 from which the outlet loading shall not exceed 0.02 grains per dry standard cubic foot of airflow.
- 2.d** The terms in this permit supercede those identified in PTI 01-6338 issued October 30, 1996 and represent a net increase of 5.1 ton OC/yr from this emission unit.

II. Operational Restrictions

1. The pressure drop across baghouse B-3700 shall be maintained within the range of 2 to 10 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 B-3700 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 following in the operations log (Form 20 12/94):
- a. pressure drop across the baghouse for each day of operation, and
 - b. a log or record of downtime for the control device and monitoring equipment, when the associated emissions unit is in operation.
2. The permittee shall maintain this emission units and associated air pollution control equipment in

Emissions Unit ID: P052

accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

The permittee shall maintain a daily record of the control device operation in the monitoring log for each day of emission unit operation, in accordance with procedures outlined in the PM&MAP (Page 55). The permittee shall record the presence of any visible particulate emissions from the capture points and stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be recorded in an operations log. If visible particulate emissions are observed, the permittee shall also record the following:

- a. whether the emissions are representative of normal operations;
 - b. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - c. the total duration of any visible emission incident; and
 - d. any corrective actions taken to eliminate the visible emissions.
3. The permittee shall maintain monthly records of the following information for the purpose of determining annual organic compound emissions:
- a. summation of the cumulative daily sand usage for each month, in tons;
 - b. monthly OC emission rate calculated by multiplying the cumulative daily sand usages in tons times the OCMA emission factor of 1.17 pound OC/ton of sand; and
 - c. annual OC emission rate based on the 12-month summation of the monthly OC emissions in tons.

IV. Reporting Requirements

1. In accordance with paragraph A.2.b. of the General Terms and Conditions the permittee shall submit quarterly deviation(excursion) reports for the following:
 - a. all exceedances during which the pressure drop across the fabric filter did not comply with the allowable range specified in restriction A.II.1., above, and any actions taken to return the pressure drop to a compliant operating range;
 - b. any exceedance of the visible particulate emission limitation specified in A.I.1., as determined through monitoring in A.III.2.. above; and

- c. all exceedances of the cumulative twelve-month OC emission limitation as specified in A.I.1., as determined through record keeping in A.III.3. above.

V. Testing Requirements

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

a. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in section A.III.2. of this permit and OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in section A.III.2. of this permit and OAC rule 3745-17-03(B)(4).

c. Emission Limitation:

The organic compound emission rate shall not exceed 1.8 pound per hour

Applicable Compliance Method:

Compliance shall be based upon the following equation-

$1.5 \text{ ton sand/hr} * 1.17 \text{ OC/ton sand (OCMA emission factor - Ohio EPA Memo 2/16/98)}$
 $= 1.8 \text{ lb OC/hr}$

Emissions Unit ID: P052

d. Emission Limitation:

The organic compound emission rate shall not exceed 5.1 tons per year

Applicable Compliance Method:
Compliance shall be based upon the cumulative 12 month emission rate determined monthly, in accordance with the Monitoring and Recordkeeping requirements in Section A.III.3.c.
 $8,725 \text{ ton sand/yr} * 1.17 \text{ pounds per ton} * 1 \text{ ton}/2000 \text{ pounds} = 5.1 \text{ ton OC/yr}$

e. Emission Limitation:

Particulate emissions shall not exceed 0.15 lb PM/hr.

Applicable Compliance Method:
The permittee conducted emission testing on March 9, 1999 on outlet of baghouse B-3700 resulting in an outlet loading of 0.006 grains/dscf.
 $0.02 \text{ gr/dscf} * 865 \text{ acf/min} * 60 \text{ min}/1 \text{ hr} * 1 \text{ lb}/7,000 \text{ gr} = 0.15 \text{ lb/hr}$

f. Emission Limitation:

Particulate emissions shall not exceed 0.7 tons per year

Applicable Compliance Method:
Compliance shall be determined by monitoring under A.III. 1. and by multiplying the hourly particulate emission rate times 8,760 hours of operation.
 $0.15 \text{ lb PM/hr} * 8,760 \text{ hr/yr} * 1 \text{ ton}/2,000 \text{ lb} = 0.7 \text{ ton PM/yr.}$

VI. Miscellaneous Requirements

1. This exemption was adopted by the Director of the Ohio EPA and became effective June 15, 1999. The USEPA has agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of this rule as revision to the Ohio SIP for ozone.

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 - Phenolic-urethane coremaking line No 7 Modification of PTI 01-6338	OAC rule 3745-31-05	

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 emissions unit P052 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Napthalene

TLV (mg/m³): 79

Maximum Hourly Emission Rate (lbs/hr): 0.21

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 386

MAGLC (ug/m³): 1,880

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.).

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.

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

NEW SOURCE REVIEW FORM B

PTI Number: 01-08129 Facility ID: 0125040020

FACILITY NAME Buckeye Steel Castings Co

FACILITY DESCRIPTION No bake lines 1 through 7. CITY/TWP Columbus

SIC CODE 3325 SCC CODE 3-04-007-31 EMISSIONS UNIT ID P046

EMISSIONS UNIT DESCRIPTION Phenolic-urethane coremaking line No 1 Modification of PTI 01-6338

DATE INSTALLED 1984

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	Attainment			0.06	0.46
PM ₁₀					
Sulfur Dioxide					
Organic Compounds	Attainment			1.8	5.1
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics	Trimethylbenzene			0.206	0.6
	Napthalene			0.206	0.6

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

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

Enter Determination Compliance with the toxic policy and 0.02gr/dscfIS 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*? x YES NOIDENTIFY THE AIR CONTAMINANTS: napthalene, trimethylbenzene

NEW SOURCE REVIEW FORM B

PTI Number: 01-08129 Facility ID: 0125040020

FACILITY NAME Buckeye Steel Castings Co

FACILITY DESCRIPTION No bake lines 1 through 7. CITY/TWP Columbus

Emissions Unit ID: P052

SIC CODE 3325 SCC CODE 3-04-007-31 EMISSIONS UNIT ID P047

EMISSIONS UNIT DESCRIPTION Phenolic-urethane coremaking line No 2 Modification of PTI 01-6338

DATE INSTALLED 1984

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	Attainment			0.15	0.7
PM ₁₀					
Sulfur Dioxide					
Organic Compounds	Attainment			1.8	5.1
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics	Napthalene Trimethylbenzene			0.206	0.6

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

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

Enter Determination Compliance with the toxic policy and 0.02gr/dscf

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*? yes YES NO

IDENTIFY THE AIR CONTAMINANTS: Napthalene, 0.02gr/dscf

NEW SOURCE REVIEW FORM B

PTI Number: 01-08129 Facility ID: 0125040020

FACILITY NAME Buckeye Steel Castings Co

FACILITY DESCRIPTION No bake lines 1 through 7. CITY/TWP Columbus

Emissions Unit ID: P052

SIC CODE 3325 SCC CODE 3-04-007-31 EMISSIONS UNIT ID P048

EMISSIONS UNIT DESCRIPTION Phenolic-urethane coremaking line No 3 Modification of PTI 01-6338

DATE INSTALLED 1984

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	Attainment			0.15	0.7
PM ₁₀					
Sulfur Dioxide					
Organic Compounds	Attainment			1.8	5.1
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics	Napthalene Trimethylbenzene			0.206	0.6

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

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

Enter Determination Compliance with the toxic policy and 0.02gr/dscf

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*? yes YES NO

IDENTIFY THE AIR CONTAMINANTS: Napthalene, trimethylbenzene

NEW SOURCE REVIEW FORM B

PTI Number: 01-08129 Facility ID: 0125040020

FACILITY NAME Buckeye Steel Castings Co

FACILITY DESCRIPTION No bake lines 1 through 7. CITY/TWP Columbus

Emissions Unit ID: P052

SIC CODE 3325 SCC CODE 3-04-007-31 EMISSIONS UNIT ID P049

EMISSIONS UNIT DESCRIPTION Phenolic-urethane coremaking line No 4 Modification of PTI 01-6338

DATE INSTALLED 1984

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	Attainment			0.15	0.7
PM ₁₀					
Sulfur Dioxide					
Organic Compounds	Attainment			1.8	5.1
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics	Napthalene Trimethylbenzene			0.206	0.6

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

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

Enter Determination Compliance with the toxic policy and 0.02gr/dscf

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 containinants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? x YES NO

IDENTIFY THE AIR CONTAMINANTS: Napthalene, Trimethylbenzene

NEW SOURCE REVIEW FORM B

PTI Number: 01-08129 Facility ID: 0125040020

FACILITY NAME Buckeye Steel Castings Co

FACILITY DESCRIPTION No bake lines 1 through 7. CITY/TWP Columbus

Emissions Unit ID: P052

SIC CODE 3325 SCC CODE 3-04-007-31 EMISSIONS UNIT ID P050

EMISSIONS UNIT DESCRIPTION Phenolic-urethane coremaking line No 5 Modification of PTI 01-6338

DATE INSTALLED 1984

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	Attainment			0.15	0.7
PM ₁₀					
Sulfur Dioxide					
Organic Compounds	Attainment			1.8	5.1
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics	Napthalene Trimethylbenzene			0.206	0.6

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

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

Enter Determination Compliance with the toxic policy and 0.02 grain/dscf

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*? yes YES NO

IDENTIFY THE AIR CONTAMINANTS: Napthalene, trimethylbenzene

NEW SOURCE REVIEW FORM B

PTI Number: 01-08129

Facility ID: 0125040020

FACILITY NAME Buckeye Steel Castings Co

FACILITY DESCRIPTION No bake lines 1 through 7.

CITY/TWP Columbus

Emissions Unit ID: P052

SIC CODE 3325

SCC CODE 3-04-007-31

EMISSIONS UNIT ID P051

EMISSIONS UNIT DESCRIPTION Phenolic-urethane coremaking line No 6 Modification of PTI 01-6338

DATE INSTALLED 1984

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	Attainment			0.15	0.7
PM ₁₀					
Sulfur Dioxide					
Organic Compounds	Attainment			1.8	5.1
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics	Napthalene Trimethylbenzene			0.206	0.6

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP?

PSD?

OFFSET POLICY?

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

Enter Determination Compliance with the toxic policy and 0.02 gr/dscf from baghouse

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*? yes YES NOIDENTIFY THE AIR CONTAMINANTS: Napthalene, trimethylbenzene

NEW SOURCE REVIEW FORM B

PTI Number: 01-08129 Facility ID: 0125040020

FACILITY NAME Buckeye Steel Castings Co

FACILITY DESCRIPTION No bake lines 1 through 7. CITY/TWP Columbus

Emissions Unit ID: P052

SIC CODE 3325 SCC CODE 3-04-007-31 EMISSIONS UNIT ID P052

EMISSIONS UNIT DESCRIPTION Phenolic-urethane coremaking line No 7 Modification of PTI 01-6338

DATE INSTALLED 1984

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	Attainment			0.15	0.7
PM ₁₀					
Sulfur Dioxide					
Organic Compounds	Attainment			1.8	5.1
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics	Napthalene Trimethylbenzene			0.206	0.6

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

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

Enter Determination Compliance with toxics policy and pm emission limited to 0.02 gr/dscf

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 containinants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? yes YES NO

IDENTIFY THE AIR CONTAMINANTS: Napthalene, trimethylbenzene

NEW SOURCE REVIEW FORM B

PTI Number: 01-08129

Facility ID: 0125040020

FACILITY NAME Buckeye Steel Castings Co

FACILITY DESCRIPTION No bake lines 1 through 7.

CITY/TWP Columbus

Emissions Unit ID: P052

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**

Screen 3 Modeling Information for trimethylbenzene - naphthalene - formaldehyde emissions from seven core makers vented as fugitive through 4 roof vents with no exit velocity.

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

	<u>Electronic</u>	<u>Additional information File Name Convention (your PTI # plus this letter)</u>	<u>Hard Copy</u>	<u>None</u>
<u>Calculations (required)</u>	<input checked="" type="checkbox"/>	000000c.wpd	<input type="checkbox"/>	
<u>Modeling form/results</u>	<input type="checkbox"/>	000000s.wpd	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>PTI Application (complete or partial)*</u>	<input type="checkbox"/>	000000a.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>BAT Study</u>	<input type="checkbox"/>	000000b.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Other/misc.</u>	<input type="checkbox"/>	000000t.wpd	<input type="checkbox"/>	<input checked="" 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](#)

7 Existing Phenolic Resin Coremaking Lines

A. General Information

Buckeye Steel Castings Co. (BSC) submitted an application in February 1996 to permit seven core making lines installed in 1987. PTI 01-6338 was issued on October 30, 1996 with seven lines permitted under an existing ID number of P903 based on 0.0008 pound OC/ton of sand (SCC emission factor) and 0.3 pound PM/ton (RACM emission factor). The permit contained reopening language that required BSC to reapply pending the results of an OCMA study to reflect the actual emissions in the permit. This permit changes the emission unit ID from P903 for the core sand system to P046-P052 for seven core making lines and represents a net decrease of 1 ton particulate emissions and a net increase

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95 NEW SOURCE REVIEW FORM B

PTI Number: 01-08129

Facility ID: 0125040020

FACILITY NAME Buckeye Steel Castings Co

FACILITY DESCRIPTION No bake lines 1 through 7.

CITY/TWP Columbus

Emissions Unit ID: P052

35.5 ton OC/yr.

BSC proposes to vent the sand bins at a flow rate of 5,550 cfm from core lines 1, 2, 3, and 4 to baghouse B-3657 and from bin vents on core lines 5, 6, and 7 to baghouse B-3700.

B. Applicable Rules

OAC rule 3745-21-07(G)(2) Core making using urethane formaldehyde resins are exempt from this rule. On June 15, 1999, the director granted a variance based on an OCMA emission factor and a BAT study that exempted existing phenolic-urethane core making lines from this rule.

OAC rule 3745-31-05 Both the organic compound and particulate hourly emission limits are BAT based limits using the maximum process weight rate (1.5 ton/hr) and annual sand usage (8,725 tons/yr) using an OCMA emission factor (1.17 lb/ton) and a RACM emission factor (0.3 lb/ton), respectively. The table below presents the allowable OC and PM emission limit based on 95% particulate control efficiency across the baghouse .

ID/ EPA No.	PWR ton/hr	OC #/hr	PM #/hr	OC tn/yr	PM tn/yr	Trm #/hr	Nap #/hr	Form #/hr	Trm t/yr	Nap t/yr	For t/yr
Line 1 P046	1.5	1.8	0.06	5.1	0.3	0.21	0.21	0.036	0.6	0.6	0.1
Line 2 P047	1.5	1.8	0.15	5.1	0.7	0.21	0.21	0.036	0.6	0.6	0.1
Line 3 P048	1.5	1.8	0.15	5.1	0.7	0.21	0.21	0.036	0.6	0.6	0.1
Line 4 P049	1.5	1.8	0.15	5.1	0.7	0.21	0.21	0.036	0.6	0.6	0.1
Line 5 P050	1.5	1.8	0.15	5.1	0.7	0.21	0.21	0.036	0.6	0.6	0.1
Line 6 P051	1.5	1.8	0.15	5.1	0.7	0.21	0.21	0.036	0.6	0.6	0.1
Line 7 P052	1.5	1.8	0.15	5.1	0.7	0.21	0.21	0.036	0.6	0.6	0.1
	10.5	12.6	0.96	35.7	4.5	1.47	1.47	0.252	4.2	4.2	0.7

OAC rule 3745-17-07(A) The emission unit vents to a baghouse with a stack, therefore it is subject to this rule. Visible stack emissions may not exceed 20% opacity, as a six-minute average except as provided by rule.

OAC rule 3745-17-07(A) The emissions unit receives sand by pneumatic transport and employs a sand-resin ribbon blender. Visible fugitive emissions may not exceed 20% opacity, as a three-minute average, except as provided by rule.

C. Miscellaneous

CDO calculated a sum total allowable hourly emission rate from 7 core lines would result in 12.6 lbOC/hr of which 3.22 lbOC/hr would be emitted as naphthalene-formaldehyde-trimethylbenzene through fugitive roof vents. The MAGLC was calculated using TLV for naphthalene because it was the lowest at $79 \text{ mg/m}^3 * 1000/42 = 1880 \text{ ug/m}^3$. CDO modeled assuming all 3.22 lb/hr was naphthalene and resulted in a concentration of 96.6 ug/m^3 times 4 vents equals 386 ug/m^3 beyond the property line. This indicates compliance with the Ohio Toxic Policy.

D. Fee

Each line has a process weight rate under SIC code 3325 of 3,000 lbs/hr resulting in a \$400 fee for a total of \$2,800.

Calculations

96 **NEW SOURCE REVIEW FORM B**

PTI Number: 01-08129

Facility ID: 0125040020

FACILITY NAME Buckeye Steel Castings Co

FACILITY DESCRIPTION No bake lines 1 through 7.

CITY/TWP Columbus

Emissions Unit ID: P052

1.5 ton sand/hr * 1.17 lb OC/ton sand = 1.8 pound OC/hr

1.17 lb OC/ton sand * 8,725 ton sand/yr * 1 ton/2000 lb = 5.1 ton OC/yr

1.8 pound OC/hr* 0.117 Trimethylbenzene/lb OC = 0.21 pound Trimethylbenzene/hr

5.1 ton OC/yr * 0.117 Trimethylbenzene/ton OC = 0.6 ton Trimethylbenzene/yr

1.8 pound OC/hr* 0.117 Napthalene/lb OC = 0.21 pound Napthalene/hr

5.1 ton OC/yr * 0.117 Napthalene/ton OC = 0.6 ton Napthalene/yr

1.8 pound OC/hr* 0.02 Formaldehyde/lb OC = 0.036 pound Formaldehyde/hr

5.1 ton OC/yr * 0.02 Formaldehyde/ton OC = 0.1 ton Formaldehyde/yr

for P046: 0.02 gr/dsf * 375 acfm * 60 min/hr * 1 lb/7,000 gr = 0.06 pound PM/hr

for P047-P052: 0.02 gr/dsf * 865 acfm * 60 min/hr * 1 lb/7,000 gr = 0.15 pound PM/hr

0.06 pound PM/hr* 8760 hr/yr * 1 ton/2000 pound = 0.26 ton PM/yr

0.15 pound PM/hr* 8760 hr/yr * 1 ton/2000 pound = 0.7 ton PM/yr

NONE

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

A. Source Description

B. Facility Emissions and Attainment Status

C. Source Emissions

D. Conclusion

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>
OC	35.7
PM	4.5