



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center
122 S. Front Street
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Mailing Address:

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

**RE: DRAFT PERMIT TO INSTALL
DELAWARE COUNTY
Application No: 01-08070**

CERTIFIED MAIL

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

DATE: 3/15/00

The General Casting Company
Douglas Roark
Post Office Box 220
Delaware, OH 43015

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

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$5000** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

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



**Permit To Install
Terms and Conditions**

**Issue Date: To be entered upon final issuance
Effective Date: To be entered upon final issuance**

DRAFT PERMIT TO INSTALL 01-08070

Application Number: 01-08070

APS Premise Number: 0121010002

Permit Fee: **To be entered upon final issuance**

Name of Facility: The General Casting Company

Person to Contact: Douglas Roark

Address: Post Office Box 220
Delaware, OH 43015

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

**148 Toledo Street
Delaware, Ohio**

Description of proposed emissions unit(s):

Core mold sand mixer wash stations 2 sand silos.

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

The General Casting Company

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Facility ID: 0121010002

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.

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. 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.

10. 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.

11. 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>
VOC	153.9
PM	1.5

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

None

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

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P009 - Small core sand mixer (TSMX 4)	OAC rule 3745-31-05 (A)(3)	<p>Volatile organic compound emissions shall not exceed 20.6 pounds per day and 3.8 tons per year;</p> <p>See A.I.2.a. below;</p>
	OAC rule 3745-21-07 (G)(2)	Exempt pursuant to OAC rule 3745-21-07 (G)(9)(i).

2. **Additional Terms and Conditions**

- 2.a The volatile organic compound emission limitations of 20.6 pounds per day and 3.8 tons per year were established to reflect the potential to emit for P009. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these limits.

II. Operational Restrictions

1. This emissions unit shall use one of the following binder systems:
 - a. Pepset I binder system consisting of 65 percent Pepset I 1630 and 45 percent Pepset II 2600;
 - b. Chem-Rez binder system (Summer) consisting of 50 percent Chem-Rez 233-G and 50 percent Chem-Rez C-2018; or
 - c. Chem-Rez binder system (Winter) consisting of 82 percent Chem-Rez 233-G and 18 percent Chem-Rez C-2014.

III. Monitoring and/or Recordkeeping Requirements

2. The permittee shall maintain daily records of the binder system used in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit to the Director (Central District Office) deviation reports which identify the days during which a binder system other than Pepset I binder system, Chem-Rez binder system (Summer) or Chem-Rez binder system (Winter) is used. These reports shall be submitted by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1).

V. Testing Requirements

1. Compliance with the emission limitations specified in Section A.I of these terms and conditions shall be determined in accordance with the following methods:
 - a. **Emission Limitation:**
Emissions of volatile organic compounds shall not exceed 20.6 pounds per day and 3.8 tons per year.

Applicable Compliance Method:

Compliance shall be established by multiplying the maximum potential throughput of 17.6 tons of sand per day by the emission factor of 1.17 pounds of VOC per ton of sand (Ohio EPA Memo, 2/16/98). Compliance with the annual limitation shall be established by multiplying the maximum potential throughput of 6409.4 tons of sand per year by the emission factor of 1.17 pounds of VOC per ton of sand (Ohio EPA Memo, 2/16/98) and dividing by 2000 pounds per ton.

VI. Miscellaneous Requirements

1. The Ohio EPA reserves the right to: (a) update the emissions factors used to estimate Organic Compound (OC) and Volatile Organic Compounds (VOC) emissions and/or (b) redefine the actual and allowable OC/VOC emissions in this permit to install for the core and/or mold making process(es) at the facility.

Upon written notification from the Ohio EPA concerning the identification and availability of updated and more representative OC/VOC emission factors, the permittee may be required to reevaluate the estimated OC/VOC emissions from the core and/or mold making operation(s) using the updated emission factors. Should the updated emission factors indicate an increase in estimated OC and/or VOC emissions the permittee shall submit the following (one copy to the appropriate District Office or Local Air Agency and one copy to the Ohio EPA, Division of Air Pollution Control, Engineering Section):

a. Revised OC/VOC Emissions Estimates:

Within sixty (60) days of receipt of the written notification from Ohio EPA, the permittee shall submit updated OC/VOC emissions estimates (maximum rate in lbs/hour and tons/year) for each core and/or mold making operation covered under this permit, using the updated emission factors.

b. Reevaluation of BAT and Compliance with OAC Rule 3745-21-07(G):

i. Within one hundred and twenty (120) days of submittal of the revised emissions estimates, for each core and/or mold making operation the permittee shall submit:

aa. for each core and/or mold making operation permitted herein utilizing photochemically reactive materials, as defined in OAC rule 3745-21-01, an analysis that reevaluates the status of compliance with the requirements of OAC rule 3745-21-07(G); and

ab. a Best Available Technology (BAT) analysis or study, conducted in accordance with Ohio EPA Engineering Guide #46, if appropriate, that defines BAT for the operation(s).

ii. Within thirty (30) days of submittal of the rule analysis and the BAT analysis or study, facility representatives shall meet with representatives of the Ohio EPA, DAPC and the appropriate District Office of local air agency to discuss and resolve any issues related to the submittals.

iii. Should the rule analysis and/or BAT analysis or study indicate that at the revised estimated OC/VOC emission rates additional emissions reductions are warranted to meet the requirements of OAC rule 3745-21-07(G) and/or the BAT requirements (OAC rule 3745-31-05), within thirty (30) days after submission of the analysis or study, the permittee shall submit an expeditious schedule for implementation of the additional emissions control for the core and/or mold making operations permitted herein. This schedule shall include the following milestone dates, as applicable:

<u>Milestone</u>	<u>Date</u>
i. Submit, if required, a PTI modification application implementing the revised BAT determination by	_____
ii. Execute the purchase order(s) for procurement of equipment or components needed to implement additional emissions control by	_____
iii. Initiate installation of equipment and/or	

components, or initiate implementation of operational changes, to implement additional OC/VOC emissions control by _____

iv. Complete installation of equipment and/or components, or operational changes, to implement additional OC/VOC emissions control by _____

v. Achieve and demonstrate final compliance with OAC rule 3745-21-07(G) and/or the revised BAT determination by _____

c. Title V Permit Application:

i. Existing Title V facilities

For a facility with a Title V application previously submitted, within one hundred and eighty (180) days of the revised BAT determination or submittal of the revised emissions estimates, whichever is later, the permittee shall submit a revised Title V application incorporating the revised emissions estimates and any other information needed to update the application as a result of the revised emissions estimates.

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>
P009 -Small core sand mixer (TSMX 4)	OAC rule 3745-15-07	See B.VI.1 below.

2. **Additional Terms and Conditions**

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

1. Air Toxic Policy

This permit allows the use of materials (typically coatings and cleanup materials) specified by the permittee in the permit to install application for this emissions unit. To fulfill the best available technology requirements of (OAC) rule 3745-31-05 and to ensure compliance with OAC rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Air Toxic Policy" and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN

3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for each pollutant:

Pollutant: Furfuryl Alcohol

TLV (ug/m3): 40,000

Maximum Hourly Emission Rate (lbs/hr): 3.92

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 918

MAGLC (ug/m3): 952.4

OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a “modification” as defined by the OAC rule 3745-31-01. The permittee is hereby advised that the following changes to the process may be determined to be a “modification”:

- 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 specified in the above table;
- b. changes to the emissions unit or its exhaust parameters (e.g., increased emission rate [not including an increase in an “allowable” emission limitation specified in the terms and conditions of this permit], reduced exhaust gas flow rate, and decreased stack height);
- c. changes in the composition of the materials used, or use of new materials, that would result in the emission of an air contaminant not previously permitted; and
- d. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV.

The Ohio EPA will not consider any of the above-mentioned as a “modification” requiring a permit to install, if the following conditions are met:

- a. the change is not otherwise considered a “modification” under OAC Chapter 3745-31;
- b. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and
- c. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

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Issued: To be entered upon final issuance

Facility ID: 0121010002

Emissions Unit ID: P009

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P011 - Flow coater mold wash station	OAC rule 3745-31-05 (A)(3)	<p>Volatile organic compound emissions shall not exceed 9.2 pounds per hour and 40.4 tons per year.</p> <p>See A.I.2.a below.</p>
	OAC rule 3745-21-07 (G)	See A.II.1 below.

2. **Additional Terms and Conditions**

- 2.a The volatile organic compound emission limitations of 9.2 pounds per hour and 40.4 tons per year were established to reflect the potential to emit for P011. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these limits.

II. Operational Restrictions

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

Prior to employing any photochemically reactive materials, the permittee shall provide written notification to, and obtain approval from, the Ohio EPA field office. Such notification shall include information sufficient to determine that the emissions associated with the proposed change in materials will comply with the emission limits and/or control requirements as defined in OAC 3745-21-07(G)(2). This notification, at a minimum, shall include the company identification of the new material to be employed, the solvent composition of the material, and the maximum amount to be used, in pounds per hour.

2. All mold wash applied to molds shall be lit off within one minute of application.

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

1. The permittee shall submit to the Director (Central District Office) deviation reports which identify the days during which photochemically reactive materials were employed in this emissions unit. Each report shall identify the cause for the use of the photochemically reactive material(s), and the estimated total quantity of material(s) emitted during each such day, in pounds. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit to the Director (Central District Office) deviation reports which identify the days during which any mold wash was not lit off within one minute of application. Each report shall identify the reason for not lighting off the coating within one minute of application, and the estimated total quantity of material(s) emitted in pounds. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1).

V. Testing Requirements

1. Compliance with the emission limitations specified in Section A.I of these terms and conditions shall be determined in accordance with the following methods:
 - a. **Emission Limitation:**
Emissions of volatile organic compound emissions shall not exceed 9.2 pounds per hour and 40.4 tons per year.

Applicable Compliance Method:

Compliance shall be established by multiplying the maximum potential throughput of 6.4 gallons per hour by the emission factor of 4.8 pounds of VOC per gallon (as per MSDS) and multiplying by 70% control efficiency (AFS study, 1998). Compliance with the annual limitation shall be established by multiplying the maximum potential gallons used per year of 56,064 gallons by the emission factor of 4.8 pounds of VOC per gallon (as per MSDS) and multiplying by 70% control efficiency (AFS study , 1998) and dividing by 2000 pounds per ton.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P011 - Flow coater mold wash station	OAC rule 3745-15-07	See B.VI.1 below.

2. **Additional Terms and Conditions**

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

1. Air Toxic Policy

This permit allows the use of materials (typically coatings and cleanup materials) specified by the permittee in the permit to install application for this emissions unit. To fulfill the best available technology requirements of (OAC) rule 3745-31-05 and to ensure compliance with OAC rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Air Toxic Policy" and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN

3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for each pollutant:

Pollutant: Isopropyl Alcohol

TLV (ug/m³): 983,000

Maximum Hourly Emission Rate (lbs/hr): 3.32

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 3525

MAGLC (ug/m³): 23,405

OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a “modification” as defined by the OAC rule 3745-31-01. The permittee is hereby advised that the following changes to the process may be determined to be a “modification”:

- 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 specified in the above table;
- b. changes to the emissions unit or its exhaust parameters (e.g., increased emission rate [not including an increase in an “allowable” emission limitation specified in the terms and conditions of this permit], reduced exhaust gas flow rate, and decreased stack height);
- c. changes in the composition of the materials used, or use of new materials, that would result in the emission of an air contaminant not previously permitted; and
- d. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV.

The Ohio EPA will not consider any of the above-mentioned as a “modification” requiring a permit to install, if the following conditions are met:

- a. the change is not otherwise considered a “modification” under OAC Chapter 3745-31;
- b. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and
- c. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

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Facility ID: 0121010002

Emissions Unit ID: P011

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P014 - Two flow coater core wash stations	OAC rule 3745-31-05 (A)(3)	<p>Volatile organic compound emissions shall not exceed 7.5 pounds per hour and 32.8 tons per year.</p> <p>See A.I.2.a below.</p>
	OAC rule 3745-21-07 (G)	See A.II.1 below.

2. **Additional Terms and Conditions**

- 2.a The volatile organic compound emission limitations of 7.5 pounds per hour and 32.8 tons per year were established to reflect the potential to emit for P014. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these limits.

II. Operational Restrictions

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

Prior to employing any photochemically reactive materials, the permittee shall provide written notification to, and obtain approval from, the Ohio EPA field office. Such notification shall include information sufficient to determine that the emissions associated with the proposed change in materials will comply with the emission limits and/or control requirements as defined in OAC 3745-21-07(G)(2). This notification, at a minimum, shall include the company identification of the new material to be employed, the solvent composition of the material, and the maximum amount to be used, in pounds per hour.

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

1. The permittee shall submit to the Director (Central District Office) deviation reports which identify the days during which photochemically reactive materials were employed in this emissions unit. Each report shall identify the cause for the use of the photochemically reactive material(s), and the estimated total quantity of material(s) emitted during each such day, in pounds. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1).

V. Testing Requirements

1. Emission Limitation:
Emissions of volatile organic compound emissions shall not exceed 7.5 pounds per hour and 32.8 tons per year.

Applicable Compliance Method:

Compliance shall be established by multiplying the maximum potential throughput of 1.56 gallons per hour by the emission factor of 4.8 pounds of VOC per gallon (as per MSDS). Compliance with the annual limitation shall be established by multiplying the maximum potential gallons used per year of 13,665 gallons by the emission factor of 4.8 pounds of VOC per gallon (as per MSDS) and dividing by 2000 pounds per ton.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P014 - Two flow coater core wash stations	OAC rule 3745-15-07	See B.VI.1 below.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

1. Air Toxic Policy

This permit allows the use of materials (typically coatings and cleanup materials) specified by the permittee in the permit to install application for this emissions unit. To fulfill the best available technology requirements of (OAC) rule 3745-31-05 and to ensure compliance with OAC rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Air Toxic Policy" and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the

application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for each pollutant:

Pollutant: Isopropyl Alcohol

TLV (ug/m3): 983,000

Maximum Hourly Emission Rate (lbs/hr): 3.32

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3525

MAGLC (ug/m3): 23,405

OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by the OAC rule 3745-31-01. The permittee is hereby advised that the following changes to the process may be determined to be a "modification":

- 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 specified in the above table;
- b. changes to the emissions unit or its exhaust parameters (e.g., increased emission rate [not including an increase in an "allowable" emission limitation specified in the terms and conditions of this permit], reduced exhaust gas flow rate, and decreased stack height);
- c. changes in the composition of the materials used, or use of new materials, that would result in the emission of an air contaminant not previously permitted; and
- d. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV.

The Ohio EPA will not consider any of the above-mentioned as a "modification" requiring a permit to install, if the following conditions are met:

- a. the change is not otherwise considered a "modification" under OAC Chapter 3745-31;
- b. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and
- c. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the

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Emissions Unit ID: P014

permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P018 - Core sand silo, for core sand mixer (TSMX 4) with fabric filter	OAC rule 3745-31-05 (A)(3)	The silo shall be adequately enclosed and vented to the fabric filter; the enclosure shall be sufficient to eliminate visible emissions of fugitive dust. The fabric filter shall achieve an outlet emission rate of not greater than 0.03 grains of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible emissions from the outlet, whichever is less stringent.
	OAC rule 3745-17-11	Particulate emissions shall not exceed 0.338 lb/hr and 0.062 ton/yr. The particulate emission limitation specified in this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05 (A).
	OAC rule 3745-17-07 (A)	See A.I.2.a below.

2. Additional Terms and Conditions

- 2.a This facility is not located in an Appendix A area as described in OAC rule 3745-17-08; therefore, OAC rules 3745-17-07 and 3745-17-08 do not apply to the fugitive particulate emissions from this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks for any visible particulate emissions from the fabric filter control system for the core sand silo, while the silo is in loaded. The presence or absence of any visible emissions from the fabric filter control system shall be noted in an operations log. If any visible emissions are observed from the system, corrective actions shall be taken to eliminate the visible emissions and these actions shall also be noted in the operations log.

IV. Reporting Requirements

1. The permittee shall submit, on a semi-annual basis, a report which identifies (a) all days during which any visible particulate emissions were observed from the fabric filter control system (b) each day during which an inspection was not performed by the required frequency (c) describes the corrective actions taken to eliminate the visible emissions (d) each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented. These reports shall be submitted by January 31 and July 31 of each year to the Central District Office.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation-
0.03 gr/dscf

Applicable Compliance Method -
If required, compliance with this mass emission limitation shall be based on stack testing per OAC rule 3745-17-03(B)(7).
 - b. Emission Limitation -
No visible emissions

Applicable Compliance Method -
Compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(4) using methods and procedures specified in USEPA Method 22.
 - c. Emission Limitation-
Particulate emissions shall not exceed 0.338 lb/hr and 0.062 ton/yr.

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Applicable Compliance Method -

If required, compliance with the short term mass emission limitation shall be based on stack testing per OAC rule 3745-17-03(B)(7). Compliance with the long term emission limitation shall be established by multiplying the maximum amount of sand loaded per year (9125 tons) by the emission factor of 0.27 pound per ton of sand loaded, and dividing by 2000 pounds per ton.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. **Additional Terms and Conditions**

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P022 - Inoculation vented to baghouse	OAC rule 3745-31-05 (A)(3)	Emissions of particulate matter from the exhaust of the fabric filter shall not exceed 0.03 grain per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions, whichever is less stringent.
	OAC rule 3745-17-11	There shall be no visible particulate emissions from the inoculation fume hooding and collection system.
	OAC rule 3745-17-07 (A)	Particulate matter emissions shall not exceed 8.1 lbs/day and 1.47 tons /yr.
		The particulate emission limitation specified in this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05 (A).
		See A.I.2.a below.

2. Additional Terms and Conditions

- 2.a This facility is not located in an Appendix A area as described in OAC rule 3745-17-08; therefore, OAC rules 3745-17-07 and 3745-17-08 do not apply to the fugitive particulate emissions from this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks for any visible particulate emissions from the exhaust of the fabric filter control system. The presence or absence of any visible emissions from the exhaust of the fabric filter control system shall be noted in an operations log. If any visible emissions are observed, corrective actions shall be taken to eliminate the visible emissions and these actions shall also be noted in the operations log.
2. The permittee shall perform daily checks for any visible particulate emissions from the inoculation fume hooding and collection system. The presence or absence of any visible emissions from the inoculation fume hooding and collection system shall be noted in an operations log. If any visible emissions are observed, corrective actions shall be taken to eliminate the visible emissions and these actions shall also be noted in the operations log.

IV. Reporting Requirements

1. The permittee shall submit, on a semi-annual basis, a report which identifies (a) all days during visible particulate emissions are observed from the exhaust of the fabric filter control system (b) all days during visible particulate emissions are observed from the inoculation fume hooding and collection system (c) each day during which an inspection was not performed by the required frequency (d) describes the corrective actions taken to eliminate the visible emissions (e) each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented. These reports shall be submitted by January 31 and July 31 of each year to the Central District Office.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation:
0.03 gr/dscf

Applicable Compliance Method -
The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - i. The emission testing shall be conducted within 6 months of installation.
 - ii. The emission testing shall be conducted to demonstrate compliance with the 0.03 gr/dscf limitation.

- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Method 5 of 40 CFR Part 60, Appendix A,. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
 - b. Emission Limitation -
No visible emissions

Applicable Compliance Method -
Compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(4) using methods and procedures specified in USEPA Method 22.
 - c. Emission Limitation-
Particulate matter emissions shall not exceed 8.1 lbs/day and 1.5 tons /yr.

Applicable Compliance Method -
The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - i. The emission testing shall be conducted within 6 months of installation.
 - ii. The emission testing shall be conducted to demonstrate compliance with the 8.1 lbs/day limitation.
 - iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Method 5 of 40 CFR Part 60, Appendix A,. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Compliance with the long term emission limitation shall be established by multiplying the emission factor found during the most recent stack test (pounds per ton of metal charged) by the total number of tons charged in the past year, and dividing by 2000 pound per ton.
 - d. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will

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be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

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

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

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P026 - Main floor mold sand mixer (TSMX 3)	OAC rule 3745-31-05 (A)(3)	Volatile organic compound emissions shall not exceed 421.2 pounds per day and 76.9 tons per year; See A.I.2.a. below;
	OAC rule 3745-21-07 (G)(2)	Exempt pursuant to OAC rule 3745-21-07 (G)(9)(i).

2. **Additional Terms and Conditions**

- 2.a The volatile organic compound emission limitations of 421.2 pounds per day and 76.9 tons per year were established to reflect the potential to emit for P026. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these limits.

II. Operational Restrictions

1. This emissions unit shall use one of the following binder systems:
 - a. Pepset I binder system consisting of 65 percent Pepset I 1630 and 45 percent Pepset II 2600;
 - b. Chem-Rez binder system (Summer) consisting of 50 percent Chem-Rez 233-G and 50 percent Chem-Rez C-2018; or
 - c. Chem-Rez binder system (Winter) consisting of 82 percent Chem-Rez 233-G and 18 percent Chem-Rez C-2014.

III. Monitoring and/or Recordkeeping Requirements

2. The permittee shall maintain daily records of the binder system used in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit to the Director (Central District Office) deviation reports which identify the days during which a binder system other than Pepset I binder system, Chem-Rez binder system (Summer) or Chem-Rez binder system (Winter) is used. These reports shall be submitted by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1).

V. Testing Requirements

1. Compliance with the emission limitations specified in Section A.I of these terms and conditions shall be determined in accordance with the following methods:

- a. **Emission Limitation:**

Emissions of volatile organic compounds shall not exceed 421.2 pounds per day and 76.9 tons per year.

Applicable Compliance Method:

Compliance shall be established by multiplying the maximum potential throughput of 360 tons of sand per day by the emission factor of 1.17 pounds of VOC per ton of sand (Ohio EPA Memo, 2/16/98). Compliance with the annual limitation shall be established by multiplying the maximum potential throughput of 131,400 tons of sand per year by the emission factor of 1.17 pounds of VOC per ton of sand (Ohio EPA Memo, 2/16/98) and dividing by 2000 pounds per ton.

VI. Miscellaneous Requirements

1. The Ohio EPA reserves the right to: (a) update the emissions factors used to estimate Organic Compound (OC) and Volatile Organic Compounds (VOC) emissions and/or (b) redefine the actual and allowable OC/VOC emissions in this permit to install for the core and/or mold making process(es) at the facility.

Upon written notification from the Ohio EPA concerning the identification and availability of updated and more representative OC/VOC emission factors, the permittee may be required to reevaluate the estimated OC/VOC emissions from the core and/or mold making operation(s) using the updated emission factors. Should the updated emission factors indicate an increase in estimated OC and/or VOC emissions the permittee shall submit the following (one copy to Central District Office and one copy to the Ohio EPA, Division of Air Pollution Control, Engineering Section):

a. Revised OC/VOC Emissions Estimates:

Within sixty (60) days of receipt of the written notification from Ohio EPA, the permittee shall submit updated OC/VOC emissions estimates (maximum rate in lbs/hour and tons/year) for each core and/or mold making operation covered under this permit, using the updated emission factors.

b. Reevaluation of BAT and Compliance with OAC Rule 3745-21-07(G):

i. Within one hundred and twenty (120) days of submittal of the revised emissions estimates, for each core and/or mold making operation the permittee shall submit:

aa. for each core and/or mold making operation permitted herein utilizing photochemically reactive materials, as defined in OAC rule 3745-21-01, an analysis that reevaluates the status of compliance with the requirements of OAC rule 3745-21-07(G); and

ab. a Best Available Technology (BAT) analysis or study, conducted in accordance with Ohio EPA Engineering Guide #46, if appropriate, that defines BAT for the operation(s).

ii. Within thirty (30) days of submittal of the rule analysis and the BAT analysis or study, facility representatives shall meet with representatives of the Ohio EPA, DAPC and the appropriate District Office of local air agency to discuss and resolve any issues related to the submittals.

iii. Should the rule analysis and/or BAT analysis or study indicate that at the revised estimated OC/VOC emission rates additional emissions reductions are warranted to meet the requirements of OAC rule 3745-21-07(G) and/or the BAT requirements (OAC rule 3745-31-05), within thirty (30) days after submission of the analysis or study, the permittee shall submit an expeditious schedule for implementation of the additional emissions control for the core and/or mold making operations permitted herein. This schedule shall include the following milestone dates, as applicable:

<u>Milestone</u>	<u>Date</u>
i. Submit, if required, a PTI modification application implementing the revised BAT determination by	_____
ii. Execute the purchase order(s) for procurement of equipment or components needed to implement additional emissions control by	_____
iii. Initiate installation of equipment and/or	

components, or initiate implementation of operational changes, to implement additional OC/VOC emissions control by _____

iv. Complete installation of equipment and/or components, or operational changes, to implement additional OC/VOC emissions control by _____

v. Achieve and demonstrate final compliance with OAC rule 3745-21-07(G) and/or the revised BAT determination by _____

c. Title V Permit Application:

i. Existing Title V facilities

For a facility with a Title V application previously submitted, within one hundred and eighty (180) days of the revised BAT determination or submittal of the revised emissions estimates, whichever is later, the permittee shall submit a revised Title V application incorporating the revised emissions estimates and any other information needed to update the application as a result of the revised emissions estimates.

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>
P026 - Main floor mold sand mixer (TSMX 3)	OAC rule 3745-15-07	See B.VI.1 below.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

1. Air Toxic Policy

This permit allows the use of materials (typically coatings and cleanup materials) specified by the permittee in the permit to install application for this emissions unit. To fulfill the best available technology requirements of (OAC) rule 3745-31-05 and to ensure compliance with OAC rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Air Toxic Policy" and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN

3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for each pollutant:

Pollutant: Furfuryl Alcohol

TLV (ug/m³): 40,000

Maximum Hourly Emission Rate (lbs/hr): 16.99

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 20.22

MAGLC (ug/m³): 952.4

OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a “modification” as defined by the OAC rule 3745-31-01. The permittee is hereby advised that the following changes to the process may be determined to be a “modification”:

- 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 specified in the above table;
- b. changes to the emissions unit or its exhaust parameters (e.g., increased emission rate [not including an increase in an “allowable” emission limitation specified in the terms and conditions of this permit], reduced exhaust gas flow rate, and decreased stack height);
- c. changes in the composition of the materials used, or use of new materials, that would result in the emission of an air contaminant not previously permitted; and
- d. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV.

The Ohio EPA will not consider any of the above-mentioned as a “modification” requiring a permit to install, if the following conditions are met:

- a. the change is not otherwise considered a “modification” under OAC Chapter 3745-31;
- b. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and
- c. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

The General Casting Company

PTI Application: 01-08070

Issued: To be entered upon final issuance

Facility ID: 0121010002

Emissions Unit ID: P026

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.

NEW SOURCE REVIEW FORM B

PTI Number: 01-08070

Facility ID: 0121010002

FACILITY NAME The General Casting Company

FACILITY DESCRIPTION Grey iron foundry CITY/TWP Delaware

SIC CODE 3321 SCC CODE 30400399 EMISSIONS UNIT ID P009

EMISSIONS UNIT DESCRIPTION Small core sand mixer (TSMX 4)

DATE INSTALLED 6/93

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM ₁₀					
Sulfur Dioxide					
Organic Compounds		20.55 lb/day	3.75	20.55 lb/day	3.75
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? _____ NESHAP? _____ PSD? _____ OFFSET POLICY? _____

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

See additional terms and conditions.

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: Furfuryl Alcohol

NEW SOURCE REVIEW FORM B

PTI Number: 01-08070

Facility ID: 0121010002

FACILITY NAME The General Casting Company

FACILITY DESCRIPTION Grey iron foundry CITY/TWP Delaware

SIC CODE 3321 SCC CODE 30400398 EMISSIONS UNIT ID P011

EMISSIONS UNIT DESCRIPTION Flow coater mold wash station, application with a brush and bucket

DATE INSTALLED 1/99

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM ₁₀					
Sulfur Dioxide					
Organic Compounds		9.22 lbs/hr	40.37	9.22 lbs/hr	40.37
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? _____ NESHAP? _____ PSD? _____ OFFSET POLICY? _____

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

See additional terms and conditions.

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: Isopropyl Alcohol

NEW SOURCE REVIEW FORM B

PTI Number: 01-08070

Facility ID: 0121010002

FACILITY NAME The General Casting Company

FACILITY DESCRIPTION Grey iron foundry CITY/TWP Delaware

SIC CODE 3321 SCC CODE 30400398 EMISSIONS UNIT ID P014

EMISSIONS UNIT DESCRIPTION Two flow coater core wash stations, application in a wash basin with a hose

DATE INSTALLED 6/98

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM ₁₀					
Sulfur Dioxide					
Organic Compounds		7.49 lbs/hr	32.8	7.49 lbs/hr	32.8
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? _____ NESHAP? _____ PSD? _____ OFFSET POLICY? _____

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

See additional terms and conditions.

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: Isopropyl Alcohol

NEW SOURCE REVIEW FORM B

PTI Number: 01-08070

Facility ID: 0121010002

FACILITY NAME The General Casting Company

FACILITY DESCRIPTION Grey iron foundry CITY/TWP Delaware

SIC CODE 3321 SCC CODE 30400356 EMISSIONS UNIT ID P018

EMISSIONS UNIT DESCRIPTION Core sand silo, for core sand mixer (TSMX 4)

DATE INSTALLED 6/96

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		0.03 gr/dscf, 0.338 lb/hr	0.062	0.03 gr/dscf, 0.338 lb/hr	0.062
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? _____ NESHAP? _____ PSD? _____ OFFSET POLICY? _____

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

See additional terms and conditions.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? _____

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

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? No YES NO

IDENTIFY THE AIR CONTAMINANTS: _____

NEW SOURCE REVIEW FORM B

PTI Number: 01-08070

Facility ID: 0121010002

FACILITY NAME The General Casting Company

FACILITY DESCRIPTION Grey iron foundry CITY/TWP Delaware

SIC CODE 3321 SCC CODE 30400310 EMISSIONS UNIT ID P022

EMISSIONS UNIT DESCRIPTION Inoculation vented to baghouse

DATE INSTALLED 1/00

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		0.03 gr/dscf, 8.1 lb/day	1.47	0.03 gr/dscf, 8.1 lb/day	1.47
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? _____ NESHAP? _____ PSD? _____ OFFSET POLICY? _____

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

See additional terms and conditions.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? _____

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

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? No YES NO

IDENTIFY THE AIR CONTAMINANTS: _____

NEW SOURCE REVIEW FORM B

PTI Number: 01-08070

Facility ID: 0121010002

FACILITY NAME The General Casting CompanyFACILITY DESCRIPTION Grey iron foundry CITY/TWP DelawareSIC CODE 3321 SCC CODE 30400398 EMISSIONS UNIT ID P026EMISSIONS UNIT DESCRIPTION Main floor mold sand mixer (TSMX 3)DATE INSTALLED 2/78

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM ₁₀					
Sulfur Dioxide					
Organic Compounds		421.2 lb/day	76.87	421.2	76.87
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? _____ NESHAP? _____ PSD? _____ OFFSET POLICY? _____

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

See additional terms and conditions.

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*? X YES NOIDENTIFY THE AIR CONTAMINANTS: Furfuryl Alcohol

NEW SOURCE REVIEW FORM B

PTI Number: 01-08070

Facility ID: 0121010002

FACILITY NAME The General Casting Company

FACILITY DESCRIPTION Grey iron foundry

CITY/TWP Delaware

Please describe any hard copy information is being submitted with this recommendation (Please send hard copy information to Pam McGraner, DAPC Central Office - Air Quality Modeling and Planning):

Calculations, Modeling information.

Please provide any additional permit specific notes as you deem necessary:

NEW SOURCE REVIEW DISCUSSION

Introduction:

The General Casting Company's Toledo Street foundry is located at 148 Toledo Street, Delaware in Delaware County. The facility is a grey iron foundry that was built prior to 1974. The majority of emission units at this facility were built prior to 1974 and have not been modified since their initial installation. This facility initially submitted a FESOP in order to avoid Title V permitting requirements. A thorough review (triggered by the FESOP application) of each unit at the facility, revealed emission units that had been modified or replaced since 1974. These units needed new PTIs in the form of Synthetic Minor PTIs.

Discussions between Ohio EPA, CDO and The General Casting Company clarified the requirements to determine and monitor the facility's FESOP status. At that time The General Casting Company decided to pursue Title V status. The permits herein are for units that need new PTIs because of modifications since 1974 or because they are new installations. Whenever possible, each unit was permitted at its maximum capacity to reduce the amount of recordkeeping and reporting requirements.

The emissions units included in this permit application are:

P026 - Main floor mold sand mixer (TSMX 3)
 P009 - Small core sand mixer (TSMX 4)
 P011 - Flow coater mold wash station
 P014 - Flow coater core wash stations
 P018 - Core sand silo (for core mixer TSMX 4)
 P022 - Inoculation

Rules:

3745-21-07 (G)(2):

Units P026 and P009 can utilize two separate binder systems: phenolic urethane no-bake and furan no-bake. Each binder system is subject to rule 3745-21-07 (G)(2).

The phenolic urethane no-bake binder system is specifically exempted from 3745-21-07 (G)(2) by the exemption in 3745-21-07 (G)(9)(i). The furan no-bake binder system is not specifically exempted under (G)(9)(i). None-the-less, General Casting Company used the same BAT study prepared by OCMA for the Ohio EPA to establish that complying with 3745-21-07 (G)(2) is not technologically or economically feasible and is the basis for the exemptions found in 3745-21-07 (G)(9)(h and i). The furan no-bake binder system is operationally the same as the phenolic urethane no-bake system, however the emission factor is 0.8 lb VOC/ton of sand rather than 1.17 lb VOC/ton of sand for phenolic urethane no-bake binders. Since the emission factor is smaller and the control equipment would be the same, the result is the same as OCMA's determination. Therefore, General Casting Company - Toledo Street feels that it meets the requirements found under 3745-21-07 (G)(9)(g) which exempts P026 and P009 from 3745-21-07 (G)(2).

Units P011 and P014 are not subject to 3745-21-07 (G) because the mold wash and core wash are both non-photochemically reactive .

As specified in 3745-21-07 (G)(9)(g)(iii), this permit needs to be issued as a Synthetic Minor.

OAC rule 3745-31-05:

The emission limitations for emission units P026, P009, P011, and P014 were written to reflect the maximum capacity of each emissions unit.

PTI Number: 01-08070

Facility ID: 0121010002

FACILITY NAME The General Casting Company

FACILITY DESCRIPTION Grey iron foundry

CITY/TWP Delaware

Modeling:P026 - Main floor mold sand mixer:

The modeling was performed assuming an emission rate of 1 g/sec from the stack allocated for this emissions unit. The result was then multiplied by the maximum g/sec emission rate of Furfuryl Alcohol to get the predicted 1-hour peak ground level concentration. No exceedences of the MAGLC were predicted.

No other pollutant was modeled because Furfuryl Alcohol is emitted significantly more than other pollutants and the TLV is the same or lower than the other pollutants.

P009 - Small core sand mixer:

This source is emitted into the ambient interior building air. The ambient interior building air is ventilated through six different exit points. Modeling was performed at each exit point assuming an emission rate of 1 g/sec. P009's emission rate in gr/sec was divided by 6. The reduced emission rate was multiplied by each emission point's highest factor derived from modeling. The peak predicted ground level concentration from each emissions point from the building was added together along with the peak predicted ground level concentration from P026. No exceedences of the MAGLC were predicted.

No other pollutant was modeled because Furfuryl Alcohol is emitted significantly more than other pollutants and the TLV is the same or lower than the other pollutants.

P011 - Flow coater mold wash station:

This source is emitted into the ambient interior building air. The ambient interior building air is ventilated through six different exit points. The modeling was performed at each exit point assuming an emission rate of 1 g/sec. The result was then multiplied by the g/sec emission rate of Isopropanol to get the maximum predicted 1-hour maximum ground level concentration. The initial analysis assumed all of the Isopropanol from P011 and P014 to be emitted from each individual exit point. No exceedences of the MAGLC were predicted.

No other pollutant was modeled because Isopropanol is emitted significantly more than other pollutants.

P014 - Flow coater core wash stations:

This source is emitted into the ambient interior building air. The ambient interior building air is ventilated through six different exit points. The modeling was performed at each exit point assuming an emission rate of 1 g/sec. The result was then multiplied by the g/sec emission rate of Isopropanol to get the maximum predicted 1-hour maximum ground level concentration. The initial analysis assumed all of the Isopropanol from P011 and P014 to be emitted from each individual exit point. No exceedences of the MAGLC were predicted.

No other pollutant was modeled because Isopropanol is emitted significantly more than other pollutants.

Demonstrating Compliance:

Emissions units P026, P009, P011, and P014 will determine compliance with the emission limits by operating the sources as specified in the PTI application. The PTIs were written to reflect each unit's physical maximum potential emissions on either an hourly or daily basis. Unless the facility and/or emissions units is/are physically modified or if specific operational changes take place (different wash or binder system), the emission limitations in this permit will not be exceeded.

The emission of VOCs specified in this PTI trigger a BAT analysis. The General Casting Company - Toledo Street has mimicked the BAT study that the OCMA developed with the Ohio EPA for the purpose of writing the exemption in rule 3745-21-07 (G)(9)(g). Based on this BAT study, it is not cost effective to instal control equipment for P026 or P009.

Emissions units P011 and P014 do not trigger a BAT analysis because the potential VOC emissions are 40.4 and 32.8 respectively. The emission level that triggers BAT analysis for VOC emissions is 100 tons per year. None-the-less unit P011 controls it's emissions by setting the wash on fire within one minute of application which reduces the emission of VOCs by 70%. The permit states that the wash must be set on

NEW SOURCE REVIEW FORM B

PTI Number: 01-08070

Facility ID: 0121010002

FACILITY NAME The General Casting CompanyFACILITY DESCRIPTION Grey iron foundryCITY/TWP Delaware

fire within one minute of application and claims it is an inherent part of this emissions unit. Unit P014 also controls it's emissions in this way however, it is not an inherent part of the process. At times the cores must be lit off and other times the cores must not be lit off.

This permit is must be issued as a draft action because the exemption specified in rule 3745-21-07 (G)(9)(g) requires a PTI to be federally enforceable if the exemption found in 3745-21-07 (G)(9)(g)(iii) is cited.

If any questions arise in the review of this permit please feel free to give me a call at 8-3811.

Sincerely,

Adam Ward

Permit To Install Synthetic Minor Write-Up**None****Please fill in the following for this permit:****TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	153.9
PM	1.5