

X Synthetic Minor Determination and/or Netting Determination
Permit To Install **01-08586**

A. Source Description

The General Casting Company is a small grey iron foundry located in Delaware County at 550 South Liberty Road. The facility is considered a Title V due to the emissions of organic compounds.

B. Facility Emissions and Attainment Status

Delaware County is attainment for all criteria pollutants.

The facility potential emissions of organic compounds trigger PSD permitting. This permit will institute federally enforceable limitations on emission units P047-P053. Emission unit P047 will receive a restriction on operating time and emission units P048-P053 will receive a combined coating usage restriction.

C. Source Emissions

The federally enforceable restrictions and limitations described above will reduce the PTE for the facility and for this PTI to below PSD thresholds.

	VOC PTE Before Synthetic Minor	VOC PTE Post Synthetic Minor
PTI 01-08586	348 tons/yr	86.4 tons/yr
Facility-wide	464.8 tons/yr	203.2 tons/yr

D. Conclusion

The federally enforceable limitations for these emission units will effectively restrict the emissions to levels below those which trigger PSD review. The record keeping and reporting contained within this permit will effectively restrict the emissions from this PTI.



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

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

**RE: DRAFT PERMIT TO INSTALL
DELAWARE COUNTY
Application No: 01-08586**

CERTIFIED MAIL

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

DATE: 7/3/2003

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 **\$2600** 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,

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

cc: USEPA

CDO

DELAWARE COUNTY

PUBLIC NOTICE
ISSUANCE OF DRAFT PERMIT TO INSTALL **01-08586** FOR AN AIR CONTAMINANT SOURCE FOR
THE GENERAL CASTING COMPANY

On 7/3/2003 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **The General Casting Company**, located at **550 S Liberty Rd, Delaware**, Ohio.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 01-08586:

Core/mold washers and sand mixer.

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Isaac Robinson, Ohio EPA, Central District Office, 3232 Alum Creek Drive, Columbus, OH 43207-3417
[(614)728-3778]



**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 01-08586

Application Number: 01-08586

APS Premise Number: 0121010003

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)]:

**550 S Liberty Rd
Delaware, Ohio**

Description of proposed emissions unit(s):

Core/mold washers and sand mixer.

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.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted 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 ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

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

12. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

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

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. 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.

5. Construction of New Sources(s)

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

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

6. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

7. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

8. 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.

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

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., 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	86.42

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

1. The permittee may be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries, 40 CFR Part 63, Subpart EEEEE. U.S. EPA failed to promulgate this standard by May 15, 2002, the Maximum Achievable Control Technology (MACT) hammer date. In accordance with 40 CFR Part 63, Subpart B (40 CFR Parts 63.50 through 63.56), the permittee shall submit an application to revise the permit to include equivalent emission limitations as a result of a case-by-case MACT determination. The application shall be submitted in two parts. The deadline to submit the Part I application, as specified in 40 CFR Part 63.53, was May 15, 2002.
2. If the final NESHAP standard is not promulgated by the deadline specified by U.S. EPA, the permittee shall submit the Part II application as specified in 40 CFR Part 63.53. The Part II application shall be submitted within 60 days after the deadline to promulgate the respective standard or by May 15, 2003, whichever is later. It must contain the following information, unless otherwise specified by future U.S. EPA regulations:
 - a. for a new affected source, the anticipated date of startup of operation;
 - b. the hazardous air pollutants (HAPs) emitted by each affected source in the relevant source category and an estimated total uncontrolled and controlled emission rate for HAPs from the affected source;
 - c. any existing federal, State, or local limitations or requirements applicable to the affected source;
 - d. for each affected emission point or group of affected emission points, an identification of control technology in place;
 - e. information relevant to establishing the MACT floor (or MACT emission limitation), and, at the option of the permittee, a recommended MACT floor; and
 - f. any other information reasonably needed by the permitting authority including, at the discretion of the permitting authority, information required pursuant to Subpart A of 40 CFR Part 63.

The Part II application for a MACT determination may, but is not required to, contain the following information:

- a. recommended emission limitations for the affected source and support information (the permittee may recommend a specific design, equipment, work practice, or operational standard, or combination thereof, as an emission limitation);
- b. a description of the control technologies that would be applied to meet the emission limitation, including technical information on the design, operation, size, estimated control efficiency and any other information deemed appropriate by the permitting authority, and identification of the affected sources to which the control technologies must be applied; and
- c. relevant parameters to be monitored and frequency of monitoring to demonstrate continuous compliance with the MACT emission limitation over the applicable reporting period.

3. If the NESHAP is promulgated before the Part II application is due for the relevant source category, the permittee may be subject to the rule as an existing major source with a compliance date as specified in the NESHAP. If subject, the permittee shall submit the following notifications:
 - a. Unless otherwise specified in the relevant Subpart, within 120 days after promulgation of a 40 CFR Part 63 Subpart to which the source is subject, the permittee shall submit an Initial Notification Report that contains the following information, in accordance with 40 CFR Part 63.9(b)(2):
 - i. the name and mailing address of the permittee;
 - ii. the physical location of the source if it is different from the mailing address;
 - iii. identification of the relevant MACT standard and the source's compliance date;
 - iv. a brief description of the nature, design, size, and method of operation of the source, and an identification of the types of emission points within the affected source subject to the relevant standard and the types of HAPs emitted; and
 - v. a statement confirming the facility is a major source for HAPs.
 - b. Unless otherwise specified in the relevant Subpart, within 60 days following completion of any required compliance demonstration activity specified in the relevant Subpart, the permittee shall submit a notification of compliance status that contains the following information:
 - i. the methods used to determine compliance;
 - ii. the results of any performance tests, visible emission observations, continuous monitoring systems performance evaluations, and/or other monitoring procedures or methods that were conducted;
 - iii. the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;
 - iv. the type and quantity of HAPs emitted by the source, reported in units and averaging times in accordance with the test methods specified in the relevant Subpart;
 - v. an analysis demonstrating whether the affected source is a major source or an area source;
 - vi. a description of the air pollution control equipment or method for each emission point, including each control device or method for each HAP and the control efficiency (percent) for each control device or method; and

The General Casting Company

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Issued: To be entered upon final issuance

Facility ID: 0121010003

Emissions Unit ID: P047

- vii. a statement of whether or not the permittee has complied with the requirements of the relevant Subpart.

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>
P047 - small floor mold sand mixer (LRMX 7)	OAC rule 3745-31-05(A)(3)	<p>Volatile organic compound (VOC) emissions shall not exceed 44.56 lbs/hr.</p> <p>See Part III.A.I.2.a below.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).</p>
	OAC rule 3745-21-07(G)(2)	<p>See Part III.A.I.2.b below.</p>
	OAC rule 3745-31-05(D)	<p>VOC emissions shall not exceed 36.1 tons per year, based upon a rolling, 12-month summation of the monthly emissions.</p> <p>See Part III.A.II.1 below.</p>

2. Additional Terms and Conditions

- 2.a** The 44.56 pounds per hour emission limitation was written to reflect the potential to emit of this emissions unit. Therefore, additional monitoring, record keeping and reporting requirements are not necessary to demonstrate compliance with this emission limitation.
- 2.b** Pursuant to paragraph (G)(9)(i) of OAC rule 3745-21-07, the requirements of OAC rule 3745-21-07(G)(2) do not apply to this emissions unit.

II. Operational Restrictions

1. The maximum operating time for this emissions unit shall not exceed 97,200 minutes, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the operating minutes specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Operating Minutes</u>
1	8100
1-2	16,200
1-3	24,300
1-4	32,400
1-5	40,500
1-6	48,600
1-7	56,700
1-8	64,800
1-9	72,900
1-10	81,000
1-11	89,100
1-12	97,200

After the first 12 calendar months of operation following issuance of this permit, compliance with the annual operating minutes limitation shall be based upon a rolling, 12-month summation of the operating minutes.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. the operating minutes for each month;
 - b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the operating minutes;
 - c. during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative operating minutes for each calendar month; and
 - d. the rolling, 12-month summation of the VOC emissions.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating minutes limitation and for the first 12 calendar months of operation following issuance of this permit, all exceedances of the maximum allowable cumulative operating minutes.
2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitation for VOC.
3. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1).
4. The permittee shall submit annual reports that specify the total VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

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:**
VOC emissions shall not exceed 44.56 lbs/hr.

Applicable Compliance Method:

Compliance with the short term emission limitation shall be determined by multiplying the maximum throughput of 1270 lbs sand/min (application, 03/02) by 60 min/hr, dividing by 2000 lbs/ton and multiplying by the emission factor of 1.17 lbs VOC/ton of sand (Ohio EPA/OCMA study, "New emission factors for core/mold making operations Part I", 2/16/98).

- b. **Emission Limitation:**
VOC emissions shall not exceed 36.1 tons per cumulative rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the long term emission limitation shall be determined by multiplying the rolling 12-month operating time found in III.1 above (minutes), by the maximum throughput of 1270 lbs sand/min (application, 03/02) dividing by 2000 lbs/ton and multiplying by the emission factor of 1.17 lbs VOC/ton of sand (Ohio EPA/OCMA study, "New emission factors for core/mold making operations Part I", 2/16/98) and dividing by 2000 lbs/ton.

VI. Miscellaneous Requirements

The Ohio EPA reserves the right to: (a) update the emissions factors used to estimate organic compound (OC) and 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, Central Office):

1. 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.

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

- a. 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:
 - i. 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
 - ii. 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).
- b. 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.
- c. 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	_____

3. Title V Permit Application:

a. 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.

4. Emissions Fee Report (for facilities subject to the Title V regulations):

Within ninety (90) days of submittal of the revised estimated emissions (item #1), the permittee shall submit a Fee Emission Report to the Ohio EPA , in accordance with OAC Chapter 3745-78 and Ohio EPA Engineering Guide #61, for the most recent completed calendar year in which the facility would be classified as a "major" under the Ohio Title V regulations.

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 - small floor mold sand mixer (LRMX 7)	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

1. The permit to install for this emissions unit P047 was evaluated based on the actual materials (binders) 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: Aromatic Petroleum Distillates (Stoddard Solvent)

TLV (mg/m3): 525

Maximum Hourly Emission Rate (lbs/hr): 18.3

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 613

MAGLC (ug/m3): 12,500

Pollutant: Phenol

TLV (mg/m3): 19

Maximum Hourly Emission Rate (lbs/hr): 1.8

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 51

MAGLC (ug/m3): 452.4

Pollutant: Trimethylbenzene

TLV (mg/m3): 123

Maximum Hourly Emission Rate (lbs/hr): 1.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 50

MAGLC (ug/m3): 2928.6

Pollutant: Xylene

TLV (mg/m3): 434

Maximum Hourly Emission Rate (lbs/hr): 0.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 17

MAGLC (ug/m3): 10,333

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

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 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>	<u>Applicable Emissions Limitations/Control Measures</u>
P048 - mainline mold wash swabbing	OAC rule 3745-31-05(A)(3)	VOC emissions shall not exceed 7.2 lbs/hr and 31.6 tons/yr. See Part III.A.I.2.a below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
	OAC rule 3745-21-07(G)	See Part III.A.I.2.b below.
	OAC rule 3745-31-05(D)	VOC emissions from emission units P048-P053 shall not exceed 50.32 tons per year, based upon a rolling, 12-month summation of the monthly emissions. See Part III.A.II.2 and 3 below.

2. Additional Terms and Conditions

- 2.a** The 7.2 pounds of VOC per hour and 31.6 tons of VOC per year emission limitations were written to reflect the potential to emit of this emissions unit. Therefore, additional monitoring, record keeping, and reporting requirements are not necessary to demonstrate compliance with these emission limitations.
- 2.b** To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

1. All mold and/or core washes applied to molds and/or cores shall be lit off within one minute of application.
2. The maximum Velvacoat usage shall not exceed 410,000 lbs per year, Velvalite usage shall not exceed 410,000 lbs per year, and IPA usage shall not exceed 110,000 lbs per year, each based upon a rolling, 12-month summation of usage figures from mission units P048-P053. A table delineating the combined usage during the first 12-months, following issuance of this permit, is not necessary because the permittee has demonstrated past compliance with the Velvacoat, Velvalite and IPA usage restrictions.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain records for each material employed in this emissions unit that indicate whether or not the material is a photochemically reactive material.
2. The permittee shall maintain records of the following information on a monthly basis, for emission units P048-P053 combined:
 - a. the company identification of each mold wash, core wash and thinner used;
 - b. the amount, in pounds, of Velvacoat, Velvalite and IPA used;
 - c. the organic compound content of Velvacoat, Velvalite and IPA used, in lbs VOC per lb of wash;
 - d. the rolling, 12-month summation of Velvacoat, Velvalite and IPA used; and
 - e. the combined rolling, 12-month summation of VOC emissions. The VOC emissions may be calculated by summing the multiplying of the amount, in pounds, of wash or thinner used, by the respective organic compound content, in lbs VOC per lb wash or thinner, by the usage, in pounds (2.c X 2.d).
3. The permittee shall maintain records of the following information:
 - a. any mold and/or core wash application in which the mold and/or core wash was not lit off within one minute of application;
 - b. the reason for not lighting off the mold and/or core wash within one minute of application; and
 - c. the duration, in minutes, before the mold and/or core wash was lit off.

IV. Reporting Requirements

1. The permittee shall submit to the Director (Central District Office) deviation (excursion) reports which identify all periods during which photochemically reactive materials were employed in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit to the Director (Central District Office) deviation (excursion) reports which identify any day during which a mold and/or core wash was not lit off within one minute of application. Each report shall identify the reason for not lighting off the mold and/or core wash within one minute of application, and the estimated total quantity of material(s) emitted in pounds. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of both the rolling, 12-month usage and VOC emissions limitations. 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:
VOC emissions shall not exceed 7.2 lbs/hr.

Applicable Compliance Method:
Compliance shall be established by summing the mold/core wash and IPA emissions. The maximum usage of 40 lbs velvalite/hr is multiplied by the emissions of 0.3 lbs VOC/lb velvalite by the destruction efficiency of (1.0-0.70) (AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98). The maximum usage of 12 lbs IPA/hr is multiplied by the emissions of 1.0 lb VOC/lb of IPA by the destruction efficiency of (1.0-0.7)(AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98).
 - b. Emission Limitation:
VOC emissions shall not exceed 31.6 tons/yr.

Applicable Compliance Method:
Compliance shall be established by summing the mold/core wash and IPA emissions. The maximum usage of 350,400 lbs velvalite/yr is multiplied by the emissions of 0.3 lbs VOC/lb velvalite by the destruction efficiency of (1.0-0.70)(AFS Casting Congress, "Measurement of

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Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98) and divided by 2000 lbs/ton. The maximum usage of 105,120 lbs IPA/yr is multiplied by the emissions of 1.0 lb VOC/lb of IPA by the destruction efficiency of (1.0-0.7)(AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98) and divided by 2000 lbs/ton.

- c. Emission Limitation:
VOC emissions from emission units P048-P053 shall not exceed 50.32 tons per year, based upon a rolling 12-month summation of the monthly emissions.

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emissions limitation based on the records keeping under section III.2 above.

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>
P048 - mainline mold wash swabbing	None	None

2. **Additional Terms and Conditions**

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

1. The permit to install for this emissions unit P048 was evaluated based on the actual materials (binders) 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: Aromatic Petroleum Distillates (Stoddard Solvent)

TLV (mg/m3): 525

Maximum Hourly Emission Rate (lbs/hr): 7.2

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 240

MAGLC (ug/m3): 12,500

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy"

will still be still satisfied. If, upon evaluation, the permittee determines that the “Air Toxic Policy” will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the “Air Toxic Policy” include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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 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>	<u>Applicable Emissions Limitations/Control Measures</u>
P049 - Loop line flow coat mold wash station	OAC rule 3745-31-05(A)(3)	VOC emissions shall not exceed 3.9 lbs/hr and 17.1 tons/yr. See Part III.A.I.2.a below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
	OAC rule 3745-21-07(G)	See Part III.A.I.2.b below.
	OAC rule 3745-31-05(D)	VOC emissions from emission units P048-P053 shall not exceed 50.32 tons per year, based upon a rolling 12-month summation of the monthly emissions. See Part III.A.II.2 below.

2. Additional Terms and Conditions

- 2.a** The 3.9 pounds of VOC per hour and 17.1 tons of VOC per year emission limitations were written to reflect the potential to emit of this emissions unit. Therefore, additional monitoring, record keeping, and reporting requirements are not necessary to demonstrate compliance with these emission limitations.
- 2.b** To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

1. All mold and/or core washes applied to molds and/or cores shall be lit off within one minute of application.
2. The maximum Velvacoat usage shall not exceed 410,000 lbs per year, Velvalite usage shall not exceed 410,000 lbs per year, and IPA usage shall not exceed 110,000 lbs per year, each based upon a rolling, 12-month summation of the usage figures from emission units P048-P053. A table delineating the combined usage during the first 12-months, following issuance of this permit, is not necessary because the permittee has demonstrated past compliance with the Velvacoat, Velvalite and IPA usage restrictions.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain records for each material employed in this emissions unit that indicate whether or not the material is a photochemically reactive material.
2. The permittee shall maintain records of the following information on a monthly basis, for emission units P048-P053 combined:
 - a. the company identification of each mold wash, core wash and thinner used;
 - b. the amount, in pounds, of Velvacoat, Velvalite and IPA used;
 - c. the organic compound content of Velvacoat, Velvalite and IPA used, in lbs VOC per lb of wash;
 - d. the rolling, 12-month summation of Velvacoat, Velvalite and IPA used; and
 - e. the combined rolling, 12-month summation of VOC emissions. The VOC emissions may be calculated by summing the multiplying the amount, in pounds, of wash or thinner used, by the respective organic compound content, in lbs VOC per lb wash or thinner, by the usage, in pounds (2.c X 2.d).
3. The permittee shall maintain records of the following information:
 - a. any mold and/or core wash application in which the mold and/or core wash was not lit off within one minute of application;
 - b. the reason for not lighting off the mold and/or core wash within one minute of application; and
 - c. the duration, in minutes, before the mold and/or core wash was lit off.

IV. Reporting Requirements

1. The permittee shall submit to the Director (Central District Office) deviation (excursion) reports which identify all periods during which photochemically reactive materials were employed in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit to the Director (Central District Office) deviation (excursion) reports which identify any day during which a mold and/or core wash was not lit off within one minute of application. Each report shall identify the reason for not lighting off the mold and/or core wash within one minute of application, and the estimated total quantity of material(s) emitted in pounds. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of both the rolling, 12-month usage and VOC emissions limitations. 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:**
VOC emissions shall not exceed 3.9 lbs/hr.

Applicable Compliance Method:

Compliance shall be established by summing the mold/core wash and IPA emissions. The maximum usage of 30 lbs velvalite/hr is multiplied by the emissions of 0.3 lbs VOC/lb velvalite by the destruction efficiency of (1.0-0.70) (AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98). The maximum usage of 4 lbs IPA/hr is multiplied by the emissions of 1.0 lb VOC/lb of IPA by the destruction efficiency of (1.0-0.7)(AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98).

- b. **Emission Limitation:**
VOC emissions shall not exceed 17.1 tons/yr.

Applicable Compliance Method:

Compliance shall be established by summing the mold/core wash and IPA emissions. The maximum usage of 262,800 lbs velvalite/yr is multiplied by the emissions of 0.3 lbs VOC/lb velvalite by the destruction efficiency of (1.0-0.70)(AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98) and divided by 2000 lbs/ton. The maximum usage of 35,040 lbs IPA/yr is multiplied by the emissions of 1.0 lb VOC/lb of IPA by the destruction efficiency of (1.0-0.7)(AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98) and divided by 2000 lbs/ton.

- c. **Emission Limitation:**

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Emissions Unit ID: P049

VOC emissions from emission units P048-P053 shall not exceed 50.32 tons per year, based on a rolling 12-month summation of the monthly emissions.

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emissions limitation based on the records keeping under section III.2 above.

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>
P049 - Loop line flow coat mold wash station	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

1. The permit to install for this emissions units P049-P053 were evaluated based on the actual materials (binders) 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 these emissions units 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: Aromatic Petroleum Distillates (Stoddard Solvent)

TLV (mg/m3): 525

Maximum Hourly Emission Rate (lbs/hr): 25.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 846

MAGLC (ug/m3): 12,500

2. Physical changes to or changes in the method of operation of these emissions units after their installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy"

will still be still satisfied. If, upon evaluation, the permittee determines that the “Air Toxic Policy” will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the “Air Toxic Policy” include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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 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>	<u>Applicable Emissions Limitations/Control Measures</u>
P050 - Small floor flow coat mold wash station	OAC rule 3745-31-05(A)(3)	VOC emissions shall not exceed 4.65 lbs/hr and 20.4 tons/yr. See Part III.A.I.2.a below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
	OAC rule 3745-21-07(G)	See Part III.A.I.2.b below.
	OAC rule 3745-31-05(D)	VOC emissions from emission units P048-P053 shall not exceed 50.32 tons per year, based on a rolling 12-month summation of the monthly emissions. See Part III.A.II.2 below.

2. Additional Terms and Conditions

- 2.a** The 4.65 pounds of VOC per hour and 20.4 tons of VOC per year emission limitations were written to reflect the potential to emit of this emissions unit. Therefore, additional monitoring, record keeping, and reporting requirements are not necessary to demonstrate compliance with these emission limitations.
- 2.b** To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

1. All mold and/or core washes applied to molds and/or cores shall be lit off within one minute of application.
2. The maximum Velvacoat usage shall not exceed 410,000 lbs per year, Velvalite usage shall not exceed 410,000 lbs per year, and IPA usage shall not exceed 110,000 lbs per year, each based upon a rolling, 12-month summation of the usage figures emission units P048-P053. A table delineating the combined usage during the first 12-months, following issuance of this permit, is not necessary because the permittee has demonstrated past compliance with the Velvacoat, Velvalite and IPA usage restrictions.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain records for each material employed in this emissions unit that indicate whether or not the material is a photochemically reactive material.
2. The permittee shall maintain records of the following information on a monthly basis, for emission units P048-P053 combined:
 - a. the company identification of each mold wash, core wash and thinner used;
 - b. the amount, in pounds, of Velvacoat, Velvalite and IPA used;
 - c. the organic compound content of Velvacoat, Velvalite and IPA used, in lbs VOC per lb of wash;
 - d. the rolling, 12-month summation of Velvacoat, Velvalite and IPA used; and
 - e. the combined rolling, 12-month summation of VOC emissions. The VOC emissions may be calculated by summing the multiplying the amount, in pounds, of wash or thinner used, by the respective organic compound content, in lbs VOC per lb wash or thinner, by the usage, in pounds (2.c X 2.d).
3. The permittee shall maintain records of the following information:
 - a. any mold and/or core wash application in which the mold and/or core wash was not lit off within one minute of application;
 - b. the reason for not lighting off the mold and/or core wash within one minute of application; and
 - c. the duration, in minutes, before the mold and/or core wash was lit off.

IV. Reporting Requirements

1. The permittee shall submit to the Director (Central District Office) deviation (excursion) reports which identify all periods during which photochemically reactive materials were employed in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit to the Director (Central District Office) deviation (excursion) reports which identify any day during which a mold and/or core wash was not lit off within one minute of application. Each report shall identify the reason for not lighting off the mold and/or core wash within one minute of application, and the estimated total quantity of material(s) emitted in pounds. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of both the rolling, 12-month usage and VOC emissions limitations. 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:
VOC emissions shall not exceed 4.65 lbs/hr.

Applicable Compliance Method:

Compliance shall be established by summing the mold/core wash and IPA emissions. The maximum usage of 35 lbs velvalite/hr is multiplied by the emissions of 0.3 lbs VOC/lb velvalite by the destruction efficiency of (1.0-0.70) (AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98). The maximum usage of 5 lbs IPA/hr is multiplied by the emissions of 1.0 lb VOC/lb of IPA by the destruction efficiency of (1.0-0.7)(AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98).

- b. Emission Limitation:
VOC emissions shall not exceed 20.4 tons/yr.

Applicable Compliance Method:

Compliance shall be established by summing the mold/core wash and IPA emissions. The maximum usage of 306,600 lbs velvalite/yr is multiplied by the emissions of 0.3 lbs VOC/lb velvalite by the destruction efficiency of (1.0-0.70)(AFS Casting Congress, "Measurement of

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Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98) and divided by 2000 lbs/ton. The maximum usage of 43,800 lbs IPA/yr is multiplied by the emissions of 1.0 lb VOC/lb of IPA by the destruction efficiency of (1.0-0.7)(AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98) and divided by 2000 lbs/ton.

- c. Emission Limitation:
VOC emissions from emission units P048-P053 shall not exceed 50.32 tons per year, based upon a rolling 12-month summation of the monthly emissions.

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emissions limitation based on the records keeping under section III.2 above.

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>
P050 - Small floor flow coat mold wash station	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

1. The permit to install for this emissions units P049-P053 were evaluated based on the actual materials (binders) 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 these emissions units 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: Aromatic Petroleum Distillates (Stoddard Solvent)

TLV (mg/m³): 525

Maximum Hourly Emission Rate (lbs/hr): 25.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 846

MAGLC (ug/m³): 12,500

2. Physical changes to or changes in the method of operation of these emissions units after their installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic

Policy” will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the “Air Toxic Policy” include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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 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

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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>
P051 - South core room flow coat core wash station no.1	OAC rule 3745-31-05(A)(3)	VOC emissions shall not exceed 9.9 lbs/hr and 43.4 tons/yr. See Part III.A.I.2.a below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
	OAC rule 3745-21-07(G)	See Part III.A.I.2.b below.
	OAC rule 3745-31-05(D)	VOC emissions from emission units P048-P053 shall not exceed 50.32 tons per year, based on a rolling 12-month summation of the monthly emissions. See Part III.A.II.2 below.

2. Additional Terms and Conditions

- 2.a** The 9.9 pounds of VOC per hour and 43.4 tons of VOC per year emission limitations were written to reflect the potential to emit of this emissions unit. Therefore, additional monitoring, record keeping, and reporting requirements are not necessary to demonstrate compliance with these emission limitations.
- 2.b** To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

1. All mold and/or core washes applied to molds and/or cores shall be lit off within one minute of application.
2. The maximum Velvacoat usage shall not exceed 410,000 lbs per year, Velvalite usage shall not exceed 410,000 lbs per year, and IPA usage shall not exceed 110,000 lbs per year, each based upon a rolling, 12-month summation of usage figures from emission units P048-P053. A table delineating the combined usage during the first 12-months, following issuance of this permit, is not necessary because the permittee has demonstrated past compliance with the Velvacoat, Velvalite and IPA usage restrictions.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain records for each material employed in this emissions unit that indicate whether or not the material is a photochemically reactive material.
2. The permittee shall maintain records of the following information on a monthly basis, for emission units P048-P053 combined:
 - a. the company identification of each mold wash, core wash and thinner used;
 - b. the amount, in pounds, of Velvacoat, Velvalite and IPA used;
 - c. the organic compound content of Velvacoat, Velvalite and IPA used, in lbs VOC per lb of wash;
 - d. the rolling, 12-month summation of Velvacoat, Velvalite and IPA used; and
 - e. the combined rolling, 12-month summation of VOC emissions. The VOC emissions may be calculated by summing the multiplying the amount, in pounds, of wash or thinner used, by the respective organic compound content, in lbs VOC per lb wash or thinner, by the usage, in pounds (2.c X 2.d).
3. The permittee shall maintain records of the following information:
 - a. any mold and/or core wash application in which the mold and/or core wash was not lit off within one minute of application;
 - b. the reason for not lighting off the mold and/or core wash within one minute of application; and
 - c. the duration, in minutes, before the mold and/or core wash was lit off.

IV. Reporting Requirements

1. The permittee shall submit to the Director (Central District Office) deviation (excursion) reports which identify all periods during which photochemically reactive materials were employed in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit to the Director (Central District Office) deviation (excursion) reports which identify any day during which a mold and/or core wash was not lit off within one minute of application. Each report shall identify the reason for not lighting off the mold and/or core wash within one minute of application, and the estimated total quantity of material(s) emitted in pounds. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of both the rolling, 12-month usage and VOC emissions limitations. 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:
VOC emissions shall not exceed 9.9 lbs/hr.

Applicable Compliance Method:

Compliance shall be established by summing the mold/core wash and IPA emissions. The maximum usage of 90 lbs velvalite/hr is multiplied by the emissions of 0.3 lbs VOC/lb velvalite by the destruction efficiency of (1.0-0.70) (AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98). The maximum usage of 6 lbs IPA/hr is multiplied by the emissions of 1.0 lb VOC/lb of IPA by the destruction efficiency of (1.0-0.7)(AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98).

- b. Emission Limitation:
VOC emissions shall not exceed 43.4 tons/yr.

Applicable Compliance Method:

Compliance shall be established by summing the mold/core wash and IPA emissions. The maximum usage of 788,400 lbs velvalite/yr is multiplied by the emissions of 0.3 lbs VOC/lb velvalite by the destruction efficiency of (1.0-0.70)(AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98) and divided by 2000 lbs/ton. The maximum usage of 52,560 lbs IPA/yr is multiplied by the emissions of 1.0 lb VOC/lb of IPA by the destruction efficiency of (1.0-0.7)(AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98) and divided by 2000 lbs/ton.

- c. Emission Limitation:

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VOC emissions from emission units P048-P053 shall not exceed 50.32 tons based on a cumulative rolling 12-month summation.

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emissions limitation based on the records keeping under section III.2 above.

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>
P051 - South core room flow coat core wash station no.1	None	None

2. **Additional Terms and Conditions**

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

1. The permit to install for this emissions units P049-P053 were evaluated based on the actual materials (binders) 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 these emissions units 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: Aromatic Petroleum Distillates (Stoddard Solvent)

TLV (mg/m3): 525

Maximum Hourly Emission Rate (lbs/hr): 25.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 846

MAGLC (ug/m3): 12,500

2. Physical changes to or changes in the method of operation of these emissions units after their installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic

Policy” will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the “Air Toxic Policy” include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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 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

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Emissions Unit ID: P051

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P052 - South core room flow coat core wash station no.2	OAC rule 3745-31-05(A)(3)	VOC emissions shall not exceed 3.0 lbs/hr and 13.1 tons/yr. See Part III.A.I.2.a below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
	OAC rule 3745-21-07(G)	See Part III.A.I.2.b below.
	OAC rule 3745-31-05(D)	VOC emissions from emission units P048-P053 shall not exceed 50.32 tons based on a cumulative rolling 12-month summation. See Part III.A.II.2 below.

2. Additional Terms and Conditions

- 2.a** The 3.0 pounds VOC of per hour and 13.1 tons of VOC per year emission limitations were written to reflect the potential to emit of this emissions unit. Therefore, additional monitoring, record keeping, and reporting requirements are not necessary to demonstrate compliance with these emission limitations.
- 2.b** To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

1. All mold and/or core washes applied to molds and/or cores shall be lit off within one minute of application.
2. The maximum Velvacoat usage shall not exceed 410,000 lbs per year, Velvalite usage shall not exceed 410,000 lbs per year, and IPA usage shall not exceed 110,000 lbs per year, each based upon a rolling, 12-month summation of the usage figures from emission units P048-P053. A table delineating the combined usage during the first 12-months, following issuance of this permit, is not necessary because the permittee has demonstrated past compliance with the Velvacoat, Velvalite and IPA usage restrictions.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain records for each material employed in this emissions unit that indicate whether or not the material is a photochemically reactive material.
2. The permittee shall maintain records of the following information on a monthly basis, for emission units P048-P053 combined:
 - a. the company identification of each mold wash, core wash and thinner used;
 - b. the amount, in pounds, of Velvacoat, Velvalite and IPA used;
 - c. the organic compound content of Velvacoat, Velvalite and IPA used, in lbs VOC per lb of wash;
 - d. the rolling, 12-month summation of Velvacoat, Velvalite and IPA used; and
 - e. the combined rolling, 12-month summation of VOC emissions. The VOC emissions may be calculated by summing the multiplying the amount, in pounds, of wash or thinner used, by the respective organic compound content, in lbs VOC per lb wash or thinner, by the usage, in pounds (2.c X 2.d).
3. The permittee shall maintain records of the following information:
 - a. any mold and/or core wash application in which the mold and/or core wash was not lit off within one minute of application;
 - b. the reason for not lighting off the mold and/or core wash within one minute of application; and
 - c. the duration, in minutes, before the mold and/or core wash was lit off.

IV. Reporting Requirements

1. The permittee shall submit to the Director (Central District Office) deviation (excursion) reports which identify all periods during which photochemically reactive materials were employed in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit to the Director (Central District Office) deviation (excursion) reports which identify any day during which a mold and/or core wash was not lit off within one minute of application. Each report shall identify the reason for not lighting off the mold and/or core wash within one minute of application, and the estimated total quantity of material(s) emitted in pounds. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of both the rolling, 12-month usage and VOC emissions limitations. 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:
VOC emissions shall not exceed 3.0 lbs/hr.

Applicable Compliance Method:

Compliance shall be established by summing the mold/core wash and IPA emissions. The maximum usage of 30 lbs velvalite/hr is multiplied by the emissions of 0.3 lbs VOC/lb velvalite by the destruction efficiency of (1.0-0.70) (AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98). The maximum usage of 1 lb IPA/hr is multiplied by the emissions of 1.0 lb VOC/lb of IPA by the destruction efficiency of (1.0-0.7)(AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98).

- b. Emission Limitation:
VOC emissions shall not exceed 13.1 tons/yr.

Applicable Compliance Method:

Compliance shall be established by summing the mold/core wash and IPA emissions. The maximum usage of 262,800 lbs velvalite/yr is multiplied by the emissions of 0.3 lbs VOC/lb velvalite by the destruction efficiency of (1.0-0.70)(AFS Casting Congress, "Measurement of

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Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98) and divided by 2000 lbs/ton. The maximum usage of 8,760 lbs IPA/yr is multiplied by the emissions of 1.0 lb VOC/lb of IPA by the destruction efficiency of (1.0-0.7)(AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98) and divided by 2000 lbs/ton.

- c. Emission Limitation:
VOC emissions from emission units P048-P053 shall not exceed 50.32 tons based on a cumulative rolling 12-month summation.

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emissions limitation based on the records keeping under section III.2 above.

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>
P052 - South core room flow coat core wash station no.2	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

1. The permit to install for this emissions units P049-P053 were evaluated based on the actual materials (binders) 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 these emissions units 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: Aromatic Petroleum Distillates (Stoddard Solvent)

TLV (mg/m³): 525

Maximum Hourly Emission Rate (lbs/hr): 25.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 846

MAGLC (ug/m³): 12,500

2. Physical changes to or changes in the method of operation of these emissions units after their installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic

Policy” will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the “Air Toxic Policy” include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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 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

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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>
P053 - North core room flow coat mold wash station	OAC rule 3745-31-05(A)(3)	VOC emissions shall not exceed 6.21 lbs/hr and 27.2 tons/yr. See Part III.A.I.2.a below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
	OAC rule 3745-21-07(G)	See Part III.A.I.2.b below.
	OAC rule 3745-31-05(D)	VOC emissions from emission units P048-P053 shall not exceed 50.32 tons based on a cumulative rolling 12-month summation. See Part III.A.II.2 below.

2. Additional Terms and Conditions

- 2.a The 6.21 pounds of VOC per hour and 27.2 tons of VOC per year emission limitations were written to reflect the potential to emit of this emissions unit. Therefore, additional monitoring, record keeping, and reporting requirements are not necessary to demonstrate compliance with these emission limitations.
- 2.b To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

1. All mold and/or core washes applied to molds and/or cores shall be lit off within one minute of application.
2. The maximum Velvacoat usage shall not exceed 410,000 lbs per year, Velvalite usage shall not exceed 410,000 lbs per year, and IPA usage shall not exceed 110,000 lbs per year, each based upon a rolling, 12-month summation of usage figures from emission units P048-P053. A table delineating the combined usage during the first 12-months, following issuance of this permit, is not necessary because the permittee has demonstrated past compliance with the Velvacoat, Velvalite and IPA usage restrictions.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain records for each material employed in this emissions unit that indicate whether or not the material is a photochemically reactive material.
2. The permittee shall maintain records of the following information on a monthly basis, for emission units P048-P053 combined:
 - a. the company identification of each mold wash, core wash and thinner used;
 - b. the amount, in pounds, of Velvacoat, Velvalite and IPA used;
 - c. the organic compound content of Velvacoat, Velvalite and IPA used, in lbs VOC per lb of wash;
 - d. the rolling, 12-month summation of Velvacoat, Velvalite and IPA used; and
 - e. the combined rolling, 12-month summation of VOC emissions. The VOC emissions may be calculated by summing the multiplying the amount, in pounds, of wash or thinner used, by the respective organic compound content, in lbs VOC per lb wash or thinner, by the usage, in pounds (2.c X 2.d).
3. The permittee shall maintain records of the following information:
 - a. any mold and/or core wash application in which the mold and/or core wash was not lit off within one minute of application;
 - b. the reason for not lighting off the mold and/or core wash within one minute of application; and
 - c. the duration, in minutes, before the mold and/or core wash was lit off.

IV. Reporting Requirements

1. The permittee shall submit to the Director (Central District Office) deviation (excursion) reports which identify all periods during which photochemically reactive materials were employed in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit to the Director (Central District Office) deviation (excursion) reports which identify any day during which a mold and/or core wash was not lit off within one minute of application. Each report shall identify the reason for not lighting off the mold and/or core wash within one minute of application, and the estimated total quantity of material(s) emitted in pounds. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of both the rolling, 12-month usage and VOC emissions limitations. 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:
VOC emissions shall not exceed 6.21 lbs/hr.

Applicable Compliance Method:

Compliance shall be established by summing the mold/core wash and IPA emissions. The maximum usage of 49 lbs velvalite/hr is multiplied by the emissions of 0.3 lbs VOC/lb velvalite by the destruction efficiency of (1.0-0.70) (AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98). The maximum usage of 6 lbs IPA/hr is multiplied by the emissions of 1.0 lb VOC/lb of IPA by the destruction efficiency of (1.0-0.7)(AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98).

- b. Emission Limitation:
VOC emissions shall not exceed 27.2 tons/yr.

Applicable Compliance Method:

Compliance shall be established by summing the mold/core wash and IPA emissions. The maximum usage of 429,240 lbs velvalite/yr is multiplied by the emissions of 0.3 lbs VOC/lb velvalite by the destruction efficiency of (1.0-0.70)(AFS Casting Congress, "Measurement of

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Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98) and divided by 2000 lbs/ton. The maximum usage of 52,560 lbs IPA/yr is multiplied by the emissions of 1.0 lb VOC/lb of IPA by the destruction efficiency of (1.0-0.7)(AFS Casting Congress, "Measurement of Emissions Associated With the Application of a Flammable Solvent-based Core and Mold Coating" 05/98) and divided by 2000 lbs/ton.

- c. Emission Limitation:
VOC emissions from emission units P048-P053 shall not exceed 50.32 tons based on a cumulative rolling 12-month summation.

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emissions limitation based on the records keeping under section III.2 above.

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>
P053 - North core room flow coat mold wash station	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

1. The permit to install for this emissions units P049-P053 were evaluated based on the actual materials (binders) 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 these emissions units 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: Aromatic Petroleum Distillates (Stoddard Solvent)

TLV (mg/m³): 525

Maximum Hourly Emission Rate (lbs/hr): 25.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 846

MAGLC (ug/m³): 12,500

2. Physical changes to or changes in the method of operation of these emissions units after their installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic

Policy” will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the “Air Toxic Policy” include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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 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

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VI. Miscellaneous Requirements

None