



State of Ohio Environmental Protection Agency

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

CERTIFIED MAIL

Street Address:

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

Mailing Address:

Lazarus Gov.
Center

Application No: 01-06455

DATE: 12/11/2001

The General Casting Company
Douglas Roark
Post Office Box 220 550 South Liberty Rd
Delaware, OH 43015

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

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

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

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

Very truly yours,

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

CC: USEPA

CDO



Permit To Install

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

FINAL PERMIT TO INSTALL 01-06455

Application Number: 01-06455
APS Premise Number: 0121010003
Permit Fee: **\$6600**
Name of Facility: The General Casting Company
Person to Contact: Douglas Roark
Address: Post Office Box 220 550 South Liberty Rd
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):

Iron foundry with pouring, cooling and breakout.

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.10 below if no deviations occurred during the quarter.

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

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

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

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are

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

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

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

B. State Only Enforceable Permit To Install General Terms and Conditions**1. Compliance Requirements**

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

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

4. Air Pollution Nuisance

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

5. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete

within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

6. Construction of New Sources(s)

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

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

7. Public Disclosure

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

8. Applicability

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other

emissions unit(s).

9. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

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

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

C. Permit To Install Summary of Allowable Emissions

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PM	42.0
OC	65.0

11

The General Casting Company

PTI Application: **01-06455**

Issued: 12/11/2001

Facility ID: **0121010003**

12

The G

PTI A₁

Issued: 12/11/2001

Emissions Unit ID: P039

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

none

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

none

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P039 - main pouring floor	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) shall not exceed 8.4 lbs/hr.
		Volatile organic compound (VOC) emissions shall not exceed 0.42 lbs/hr.
	OAC rule 3745-17-08(B)	See Part III.A.I.2.a-b and II.1-2 below.
	OAC rule 3745-17-07(B)	See Part III.A.I.2.c below.
		See Part III.A.I.2.d below.

2. Additional Terms and Conditions

- 2.a Particulate emissions (PE) from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined shall not exceed 336 lbs per day and 42 tons per year.
- 2.b Volatile organic compound (VOC) emissions from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined shall not exceed 16.8 lbs per day and 2.1 tons per year.
- 2.c Since this emissions unit is not located in an Appendix A area, pursuant to paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) do not apply to this emissions unit.

- 2.d Pursuant to paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.
- 2.e The 8.4 lbs PE/hr and 0.42 lbs VOC/hr emission limitations were written to reflect the potential to emit of this emissions unit. Therefore, record keeping and reporting requirements are not necessary to demonstrate compliance with these emission limitations.

II. Operational Restrictions

- 1. The maximum amount of metal poured facility-wide shall not exceed 30,000 tons per year, based upon a rolling, 12-month summation of the metal pouring rate for emission units P039, P040 and P046 combined.
- 2. Visible fugitive particulate emissions shall not exceed 10% opacity as a 3-minute average from any non-stack egress point.

For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to: doorways, windows, and roof monitors.

III. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall maintain daily records of the following information:
 - a. the total metal poured in emission units P039, P040 and P046 combined (tons); and
 - b. the rolling 12-month summation of the total metal poured from emission units P039, P040 and P046 combined (tons).
- 2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for visible fugitive particulate emissions from the non-stack egress points from the building housing this emissions unit. These egress points shall include, but not be limited to: doorways, windows, and roof monitors. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the location of the emissions;
 - b. whether the emissions are representative of normal operations;

Issued

Emissions Unit ID: P039

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

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation. These reports shall be submitted within 30 days of when the exceedance occurs.
2. The permittee shall submit quarterly deviation (excursion) reports which (a) identify all days during which any visible fugitive particulate emissions were observed from the non-egress points from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

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:
Visible fugitive particulate emissions shall not exceed 10% opacity as a 3-minute average from any non-stack egress point.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03 (B)(1).
 - b. Emission Limitation:
Particulate emissions (PE) from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined shall not exceed 336 lbs per day and 42 tons per year.

Applicable Compliance Method:
Compliance with the short term emission limitation shall be determined by multiplying the daily amount of metal poured from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined by the emission factor of 2.8 lbs PE/ton of metal poured (AIRS, 30400302, 3/90).

Compliance with the long term emission limitation shall be determined by multiplying the rolling, 12-month summation of the metal poured from emission units P039 (main pouring

floor), P040 (loop pouring floor), and P046 (small pouring floor), combined by the emission factor of 2.8 lbs PE/ton of metal poured (AIRS, 30400302, 3/90) and dividing by 2000 lbs/ton.

- c. Emission Limitation:
Volatile organic compound (VOC) emissions from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined shall not exceed 16.8 lbs per day and 2.1 tons per year.

Applicable Compliance Method:

Compliance with the short term emission limitation shall be determined by multiplying the daily amount of metal poured from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined by the emission factor of 0.14 lbs VOC/ton of metal poured (AIRS, 30400302, 3/90).

Compliance with the long term emission limitation shall be determined by multiplying the rolling, 12-month summation of the metal poured from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined by the emission factor of 0.14 lbs VOC/ton of metal poured (AIRS, 30400302, 3/90) and dividing by 2000 lbs/ton.

- d. Emission Limitation:
PE shall not exceed 8.4 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the maximum hourly amount of metal poured (3.0 tons/hr) by the emission factor of 2.8 lbs PE/ton of metal poured (AIRS, 30400302, 3/90).

- e. Emission Limitation:
VOC emissions shall not exceed 0.42 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the maximum hourly amount of metal poured (3.0 tons/hr) by the emission factor of 0.14 lbs VOC/ton of metal poured (AIRS, 30400302, 3/90).

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>
P039 - main pouring floor	none	none

2. Additional Terms and Conditions

2.a none

II. Operational Restrictions

none

III. Monitoring and/or Recordkeeping Requirements

none

IV. Reporting Requirements

none

V. Testing Requirements

none

VI. Miscellaneous Requirements

none

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P040 - loop pouring floor	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) shall not exceed 8.4 lbs/hr.
	OAC rule 3745-17-08(B)	Volatile organic compound (VOC) emissions shall not exceed 0.42 lbs/hr.
	OAC rule 3745-17-07(B)	See Part III.A.I.2.a-b and II.1-2 below.
		See Part III.A.I.2.c below.
		See Part III.A.I.2.d below.

2. Additional Terms and Conditions

- 2.a Particulate emissions (PE) from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined shall not exceed 336 lbs per day and 42 tons per year.
- 2.b Volatile organic compound (VOC) emissions from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined shall not exceed 16.8 lbs per day and 2.1 tons per year.
- 2.c Since this emissions unit is not located in an Appendix A area, pursuant to paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) do not apply to this emissions unit.

- 2.d Pursuant to paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.
- 2.e The 8.4 lbs PE/hr and 0.42 lbs VOC/hr emission limitations were written to reflect the potential to emit of this emissions unit. Therefore, record keeping and reporting requirements are not necessary to demonstrate compliance with these emission limitations.

II. Operational Restrictions

1. The maximum amount of metal poured facility-wide shall not exceed 30,000 tons per year, based upon a rolling, 12-month summation of the metal pouring rate for emission units P039, P040 and P046 combined.
2. Visible fugitive particulate emissions shall not exceed 10% opacity as a 3-minute average from any non-stack egress point.

For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to: doorways, windows, and roof monitors.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain daily records of the following information:
 - a. the total metal poured in emission units P039, P040 and P046 combined (tons); and
 - b. the rolling 12-month summation of the total metal poured from emission units P039, P040 and P046 combined (tons).
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for visible fugitive particulate emissions from the non-stack egress points from the building housing this emissions unit. These egress points shall include, but not be limited to: doorways, windows, and roof monitors. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the location of the emissions;
 - b. whether the emissions are representative of normal operations;

Issued

Emissions Unit ID: P040

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

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation. These reports shall be submitted within 30 days of when the exceedance occurs.
2. The permittee shall submit quarterly deviation (excursion) reports which (a) identify all days during which any visible fugitive particulate emissions were observed from the non-egress points from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

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:
Visible fugitive particulate emissions shall not exceed 10% opacity as a 3-minute average from any non-stack egress point.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03 (B)(1).
 - b. Emission Limitation:
Particulate emissions (PE) from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined shall not exceed 336 lbs per day and 42 tons per year.

Applicable Compliance Method:
Compliance with the short term emission limitation shall be determined by multiplying the daily amount of metal poured from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined by the emission factor of 2.8 lbs PE/ton of metal poured (AIRS, 30400302, 3/90).

Compliance with the long term emission limitation shall be determined by multiplying the rolling, 12-month summation of the metal poured from emission units P039 (main pouring

floor), P040 (loop pouring floor), and P046 (small pouring floor), combined by the emission factor of 2.8 lbs PE/ton of metal poured (AIRS, 30400302, 3/90) and dividing by 2000 lbs/ton.

- c. Emission Limitation:
Volatile organic compound (VOC) emissions from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined shall not exceed 16.8 lbs per day and 2.1 tons per year.

Applicable Compliance Method:

Compliance with the short term emission limitation shall be determined by multiplying the daily amount of metal poured from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined by the emission factor of 0.14 lbs VOC/ton of metal poured (AIRS, 30400302, 3/90).

Compliance with the long term emission limitation shall be determined by multiplying the rolling, 12-month summation of the metal poured from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined by the emission factor of 0.14 lbs VOC/ton of metal poured (AIRS, 30400302, 3/90) and dividing by 2000 lbs/ton.

- d. Emission Limitation:
PE shall not exceed 8.4 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the maximum hourly amount of metal poured (3.0 tons/hr) by the emission factor of 2.8 lbs PE/ton of metal poured (AIRS, 30400302, 3/90).

- e. Emission Limitation:
VOC emissions shall not exceed 0.42 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the maximum hourly amount of metal poured (3.0 tons/hr) by the emission factor of 0.14 lbs VOC/ton of metal poured (AIRS, 30400302, 3/90).

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>
P040 - loop pouring floor	none	none

2. Additional Terms and Conditions

2.a none

II. Operational Restrictions

none

III. Monitoring and/or Recordkeeping Requirements

none

IV. Reporting Requirements

none

V. Testing Requirements

none

VI. Miscellaneous Requirements

none

Issued: 12/11/2001

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>
P041 - large core room sand mixer LRMX 1	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 17.55 lbs/hr and 4.7 tons/yr.
	OAC rule 3745-31-05(D)	See Part III.A.II.1 below
	OAC rule 3745-21-07(G)(2)	See Part III.A.I.2.b below.

2. Additional Terms and Conditions

- 2.a The 17.55 pound per hour emission limitation was written to reflect the potential to emit of this emissions unit. Therefore, record keeping and reporting requirements are not necessary to demonstrate compliance with the 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 32,400 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	2700
1-2	5400
1-3	8100
1-4	10,800
1-5	13,500
1-6	16,200
1-7	18,900
1-8	21,600
1-9	24,300
1-10	27,000
1-11	29,700
1-12	32,400

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 Recordkeeping 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; and
 - 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.

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. 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:

Emission Limitation:

Issued: 12/11/2001

Volatile organic compound (VOC) emissions shall not exceed 17.55 lbs/hr and 4.7 tons/yr.

Applicable Compliance Method:

Compliance with the short term emission limitation shall be determined by multiplying the maximum throughput of 500 lbs sand/min (application, 6/96) 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).

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 500 lbs sand/min (application, 6/96) 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 Volatile Organic Compounds (VOC) emissions and/or (b) redefine the actual and allowable OC/VOC emissions in this permit to install for the core and/or mold making process(es) at the facility.

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

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>
P041 - large core room sand mixer LRMX 1	none	none

2. Additional Terms and Conditions

2.a none

II. Operational Restrictions

none

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit P041 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): 2.74

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 91.3

MAGLC (ug/m3): 12,500

Pollutant: Phenol

TLV (mg/m3): 19

Maximum Hourly Emission Rate (lbs/hr): 0.913

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 30.4

MAGLC (ug/m3): 452.4

Pollutant: Trimethylbenzene

TLV (mg/m3): 123

Maximum Hourly Emission Rate (lbs/hr): 1.55

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 51.7

MAGLC (ug/m3): 2928.6

Pollutant: Xylene

TLV (mg/m3): 434

Maximum Hourly Emission Rate (lbs/hr): 0.457

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 15.2

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 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

31

The G

PTI A

Issued: 12/11/2001

Emissions Unit ID: P041

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>
P042 - main line sand mixer LRMX 2	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 49.14 lbs/hr and 33.2 tons/yr.
	OAC rule 3745-21-07(G)(2)	See Part III.A.I.2.b below.

2. Additional Terms and Conditions

- 2.a The 49.14 pounds per hour emission limitation was written to reflect the potential to emit of this emissions unit. Therefore, record keeping and reporting requirements are not necessary to demonstrate compliance with the 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 81,000 minutes per rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. the operating minutes for each month; and

- b. the rolling, 12-month summation of the operating minutes.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating minutes limitation. 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:

Emission Limitation:

Volatile organic compound (VOC) emissions shall not exceed 49.14 lbs/hr and 33.2 tons/yr..

Applicable Compliance Method:

Compliance with the short term emission limitation shall be determined by multiplying the maximum throughput of 1400 lbs sand/min (application, 6/96) 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).

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 1400 lbs sand/min (application, 6/96) 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 Volatile Organic Compounds (VOC) emissions and/or (b) redefine the actual and allowable OC/VOC emissions in this permit to install for the core and/or mold making process(es) at the facility.

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

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	_____

The General Casting Company

PTI Application: ~~01 06155~~

Issued

Facility ID: **0121010003**

Emissions Unit ID: P042

- 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>
P042 - main line sand mixer LRMX 2	OAC rule 3745-31-05	none

2. Additional Terms and Conditions

2.a none

II. Operational Restrictions

none

III. Monitoring and/or Recordkeeping Requirements

none

IV. Reporting Requirements

none

V. Testing Requirements

none

VI. Miscellaneous Requirements

none

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P043 - small core room sand mixer LRMX 3	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 8.42 lbs/hr and 1.14 tons/yr.
	OAC rule 3745-21-07(G)(2)	See Part III.A.I.2.b below.

2. Additional Terms and Conditions

- 2.a The 8.42 pounds per hour emission limitation was written to reflect the potential to emit of this emissions unit. Therefore, record keeping and reporting requirements are not necessary to demonstrate compliance with the 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 16,200 minutes per rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. the operating minutes for each month; and

- b. the rolling, 12-month summation of the operating minutes.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating minutes limitation. 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:

Emission Limitation:

Volatile organic compound (VOC) emissions shall not exceed 8.42 lbs/hr and 1.14 tons/yr.

Applicable Compliance Method:

Compliance with the short term emission limitation shall be determined by multiplying the maximum throughput of 240 lbs sand/min (application, 6/96) 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).

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 240 lbs sand/min (application, 6/96) 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 Volatile Organic Compounds (VOC) emissions and/or (b) redefine the actual and allowable OC/VOC emissions in this permit to install for the core and/or mold making process(es) at the facility.

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

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	_____

The General Casting Company

PTI Application: ~~01 06155~~

Issued

Facility ID: **0121010003**

Emissions Unit ID: P043

- 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>
P043 - small core room sand mixer LRMX 3	OAC rule 3745-31-05	none

2. Additional Terms and Conditions

2.a none

II. Operational Restrictions

none

III. Monitoring and/or Recordkeeping Requirements

none

IV. Reporting Requirements

none

V. Testing Requirements

none

VI. Miscellaneous Requirements

none

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P044 - loop line sand mixer LRMX 4	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 23.17 lbs/hr and 21.9 tons/yr.
	OAC rule 3745-31-05(D)	See Part III.A.II.1 below.
	OAC rule 3745-21-07(G)(2)	See Part III.A.I.2.b below.

2. Additional Terms and Conditions

- 2.a The 23.17 pounds per hour emission limitation was written to reflect the potential to emit of this emissions unit. Therefore, record keeping and reporting requirements are not necessary to demonstrate compliance with the 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 113,400 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	9450
1-2	18,900
1-3	28,350
1-4	37,800
1-5	47,250
1-6	56,700
1-7	66,150
1-8	75,600
1-9	85,050
1-10	94,500
1-11	103,950
1-12	113,400

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 Recordkeeping 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; and
 - 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.

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. 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:

Emission Limitation:

Volatile organic compound (VOC) emissions shall not exceed 23.17 lbs/hr and 21.9 tons/yr.

Applicable Compliance Method:

Compliance with the short term emission limitation shall be determined by multiplying the maximum throughput of 660 lbs sand/min (application, 6/96) by 60 min/hr, dividing by 2000

Issued: 12/11/2001

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).

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 660 lbs sand/min (application, 6/96) 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 Volatile Organic Compounds (VOC) emissions and/or (b) redefine the actual and allowable OC/VOC emissions in this permit to install for the core and/or mold making process(es) at the facility.

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

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

51

The G

PTI A

Issued: 12/11/2001

Emissions Unit ID: P044

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>
P044 - loop line sand mixer LRMX 4	OAC rule 3745-31-05	none

2. Additional Terms and Conditions

2.a none

II. Operational Restrictions

none

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit P044 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): 1.27

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 42.2

MAGLC (ug/m3): 12,500

Pollutant: Phenol

TLV (mg/m3): 19

Maximum Hourly Emission Rate (lbs/hr): 0.422

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 14.1

MAGLC (ug/m3): 452.4

Pollutant: Trimethylbenzene

TLV (mg/m3): 123

Maximum Hourly Emission Rate (lbs/hr): 0.717

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 23.9

MAGLC (ug/m3): 2928.6

Pollutant: Xylene

TLV (mg/m3): 434

Maximum Hourly Emission Rate (lbs/hr): 0.211

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 7.0

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 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

56

The General Casting Company

PTI Application: ~~01 06155~~

Issued

Facility ID: **0121010003**

Emissions Unit ID: P044

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>
P045 - large core room sand mixer LRMX 6	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 5.62 lbs/hr and 2.0 tons/yr.
	OAC rule 3745-21-07(G)(2)	See Part III.A.I.2.b below.

2. Additional Terms and Conditions

- 2.a The 5.62 pounds per hour emission limitation was written to reflect the potential to emit of this emissions unit. Therefore, record keeping and reporting requirements are not necessary to demonstrate compliance with the 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 43,200 minutes per rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. the operating minutes for each month; and

58

The G

PTI A₁

Issued: 12/11/2001

Emissions Unit ID: P045

- b. the rolling, 12-month summation of the operating minutes.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating minutes limitation. 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:

Emission Limitation:

Volatile organic compound (VOC) emissions shall not exceed 5.62 lbs/hr and 2.0 tons/yr.

Applicable Compliance Method:

Compliance with the short term emission limitation shall be determined by multiplying the maximum throughput of 160 lbs sand/min (application, 6/96) 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).

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 160 lbs sand/min (application, 6/96) 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 Volatile Organic Compounds (VOC) emissions and/or (b) redefine the actual and allowable OC/VOC emissions in this permit to install for the core and/or mold making process(es) at the facility.

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

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>
P045 - large core room sand mixer LRMX 6	OAC rule 3745-31-05	none

2. Additional Terms and Conditions

2.a none

II. Operational Restrictions

none

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit P045 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): 1.69

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 56.2

MAGLC (ug/m3): 12,500

Pollutant: Phenol

TLV (mg/m3): 19

Maximum Hourly Emission Rate (lbs/hr): 0.56

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 18.7

MAGLC (ug/m3): 452.4

Pollutant: Trimethylbenzene

TLV (mg/m3): 123

Maximum Hourly Emission Rate (lbs/hr): 0.96

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 31.8

MAGLC (ug/m3): 2928.6

Pollutant: Xylene

TLV (mg/m3): 434

Maximum Hourly Emission Rate (lbs/hr): 0.28

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 9.4

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 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

65

The General Casting Company

PTI Application: ~~01 06155~~

Issued

Facility ID: **0121010003**

Emissions Unit ID: P045

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>
P046 - small pouring floor	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) shall not exceed 8.4 lbs/hr.
		Volatile organic compound (VOC) emissions shall not exceed 0.42 lbs/hr.
	OAC rule 3745-17-08(B)	See Part III.A.I.2.a-b and II.1-2 below.
	OAC rule 3745-17-07(B)	See Part III.A.I.2.c below.
		See Part III.A.I.2.d below.

2. Additional Terms and Conditions

- 2.a Particulate emissions (PE) from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined shall not exceed 336 lbs per day and 42 tons per year.
- 2.b Volatile organic compound (VOC) emissions from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined shall not exceed 16.8 lbs per day and 2.1 tons per year.
- 2.c Since this emissions unit is not located in an Appendix A area, pursuant to paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) do not apply to this emissions unit.

- 2.d Pursuant to paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.
- 2.e The 8.4 lbs PE/hr and 0.42 lbs VOC/hr emission limitations were written to reflect the potential to emit of this emissions unit. Therefore, record keeping and reporting requirements are not necessary to demonstrate compliance with these emission limitations.

II. Operational Restrictions

- 1. The maximum amount of metal poured facility-wide shall not exceed 30,000 tons per year, based upon a rolling, 12-month summation of the metal pouring rate for emission units P039, P040 and P046 combined.
- 2. Visible fugitive particulate emissions shall not exceed 10% opacity as a 3-minute average from any non-stack egress point.

For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to: doorways, windows, and roof monitors.

III. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall maintain daily records of the following information:
 - a. the total metal poured in emission units P039, P040 and P046 combined (tons); and
 - b. the rolling 12-month summation of the total metal poured from emission units P039, P040 and P046 combined (tons).
- 2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for visible fugitive particulate emissions from the non-stack egress points from the building housing this emissions unit. These egress points shall include, but not be limited to: doorways, windows, and roof monitors. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the location of the emissions;
 - b. whether the emissions are representative of normal operations;

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

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation. These reports shall be submitted within 30 days of when the exceedance occurs.
2. The permittee shall submit quarterly deviation (excursion) reports which (a) identify all days during which any visible fugitive particulate emissions were observed from the non-egress points from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

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:
Visible fugitive particulate emissions shall not exceed 10% opacity as a 3-minute average from any non-stack egress point.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03 (B)(1).
 - b. Emission Limitation:
Particulate emissions (PE) from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined shall not exceed 336 lbs per day and 42 tons per year.

Applicable Compliance Method:
Compliance with the short term emission limitation shall be determined by multiplying the

Issued

Emissions Unit ID: P046

daily amount of metal poured from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined by the emission factor of 2.8 lbs PE/ton of metal poured (AIRS, 30400302, 3/90).

Compliance with the long term emission limitation shall be determined by multiplying the rolling, 12-month summation of the metal poured from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined by the emission factor of 2.8 lbs PE/ton of metal poured (AIRS, 30400302, 3/90) and dividing by 2000 lbs/ton.

- c. Emission Limitation:
Volatile organic compound (VOC) emissions from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined shall not exceed 16.8 lbs per day and 2.1 tons per year.

Applicable Compliance Method:

Compliance with the short term emission limitation shall be determined by multiplying the daily amount of metal poured from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined by the emission factor of 0.14 lbs VOC/ton of metal poured (AIRS, 30400302, 3/90).

Compliance with the long term emission limitation shall be determined by multiplying the rolling, 12-month summation of the metal poured from emission units P039 (main pouring floor), P040 (loop pouring floor), and P046 (small pouring floor), combined by the emission factor of 0.14 lbs VOC/ton of metal poured (AIRS, 30400302, 3/90) and dividing by 2000 lbs/ton.

- d. Emission Limitation:
PE shall not exceed 8.4 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the maximum hourly amount of metal poured (3.0 tons/hr) by the emission factor of 2.8 lbs PE/ton of metal poured (AIRS, 30400302, 3/90).

- e. Emission Limitation:
VOC emissions shall not exceed 0.42 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the maximum hourly amount of metal poured (3.0 tons/hr) by the emission factor of 0.14 lbs VOC/ton of metal poured (AIRS, 30400302, 3/90).

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>
P046 - small pouring floor	none	none

2. Additional Terms and Conditions

2.a none

II. Operational Restrictions

none

III. Monitoring and/or Recordkeeping Requirements

none

IV. Reporting Requirements

none

V. Testing Requirements

none

VI. Miscellaneous Requirements

none