



State of Ohio Environmental Protection Agency

Street Address:

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

**RE: FINAL PERMIT TO INSTALL  
WAYNE COUNTY  
Application No: 02-21528  
Fac ID: 0285010034**

**CERTIFIED MAIL**

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

**DATE: 1/10/2006**

Ross Sand Casting Industry, LLC  
Ken Owens  
1100 N Main St  
Orrville, OH 44667

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  
309 South Fourth Street, Room 222  
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

CC: USEPA

NEDO



**Permit To Install  
Terms and Conditions**

**Issue Date: 1/10/2006  
Effective Date: 1/10/2006**

**FINAL PERMIT TO INSTALL 02-21528**

Application Number: 02-21528  
Facility ID: 0285010034  
Permit Fee: **\$3000**  
Name of Facility: Ross Sand Casting Industry, LLC  
Person to Contact: Ken Owens  
Address: 1100 N Main St  
Orrville, OH 44667

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**1100 North Main St  
Orrville, Ohio**

Description of proposed emissions unit(s):  
**2 shotblast machines, 2 sand mixers, moldmaking.**

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 (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, 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. If this permit is for an emissions unit located at a Title V facility, then 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.
- d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## **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 re-issuance, or modification
- 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, 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 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 any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

**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 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 and the State and by citizens (to the extent allowed by section 304 of the Act) 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 is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

#### **11. Best Available Technology**

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

#### **12. Air Pollution Nuisance**

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

### **13. Permit-To-Install**

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

## **B. State Only Enforceable Permit-To-Install General Terms and Conditions**

### **1. Compliance Requirements**

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

### **2. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, 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. Authorization To Install or Modify**

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

**5. Construction of New Sources(s)**

This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. 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 this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

**6. Public Disclosure**

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

**7. Applicability**

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

**8. Construction Compliance Certification**

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) that the facility has been constructed in accordance with the permit-to-install application and the terms and conditions of the permit-to-install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

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

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

**C. Permit-To-Install Summary of Allowable Emissions**

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PE	9.69
VOC	21.25

**Ross Sand Casting Industry, LLC**

**PTI Application: 02-21528**

**Issued: 1/10/2006**

**Facility ID:**

**0285010034**

**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



OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
OAC rule 3745-17-07(B)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.
OAC rule 3745-21-07(G)	See section A.I.2.a.

## 2. Additional Terms and Conditions

- 2.a In accordance with OAC rule 3745-17-11(A)(2)(a)(ii), "Figure II" of OAC rule 3745-17-11 shall not apply to this emissions unit because the uncontrolled particulate matter emissions are less than 10 pounds per hour. In accordance with OAC rule 3745-17-11(A)(2)(b)(ii), "Table I" of OAC rule 3745-17-11 shall not apply to this emissions unit because it is located in Wayne County.
- 2.b The resins and other liquid organic materials used in this emissions unit shall not contain any photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5).
- 2.c The hourly and annual VOC emission limitations above are based on the emissions unit's potential to emit. Therefore, no records are required to be maintained to demonstrate compliance with these limits.

## II. Operational Restrictions

- 1. The pressure drop across the scrubber shall be continuously maintained within a range of 2 to 8 inches of water column at all times while the emissions unit is in operation.

The scrubber water flow rate shall be continuously maintained at a value of not less than 94.2 gallons per minute at all times while the emissions unit is in operation.

## III. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall keep the following daily records for all materials used in this emissions unit:
  - a. An identification of each chemical compound in each organic material and its physical state.
  - b. For any liquid organic materials, documentation as to whether or not the material is a photochemically reactive material as defined in OAC rule 3745-21-01(C)(5).

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

- a. The pressure drop across the scrubber, in inches of water.
- b. The scrubber water flow rate, in gallons per minute.
- c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day during which any photochemically reactive materials were employed.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:  
fugitive PE shall not exceed 0.048 TPY

Applicable Compliance Method:

Compliance with the annual fugitive emission limitation above shall be determined using an emission factor of 1.07 lbs/ton of sand employed, the maximum sand production rate of 8,760 tons/yr, and a capture efficiency of the control system of 99%. The emission factor was created by summing an emission factor of 0.72 lb/ton from AP-42, Table 11.12-2 for the bin vent and 0.35 lb/ton from RACM, Table 2.7-1 for core making.

- 1.b Emission Limitation:  
0.015 gr/dscf from the scrubber stack (this equates to 0.064 lb/hr and 0.28 TPY for this emissions unit)

**Applicable Compliance Method:**

Compliance with the emission limitation above shall be determined through stack testing as specified for the scrubber serving this emissions unit in the terms and conditions of the permittee's Title V permit issued August 14, 2002 for emissions units F007, F008, P020, P021, P023, and P025.. The annual emission limitation was created by multiplying the hourly emission limitation by 8,760 hrs/yr and dividing by 2,000 lbs/ton.

**1.c Emission Limitation:**

Visible emissions from the scrubber stack shall not exceed five (5) percent opacity, as a six-minute average.

**Applicable Compliance Method:**

Compliance with the visible emission limitation above shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

**1.d Emission Limitation:**

Visible emissions of fugitive dust from this emissions unit shall not exceed five (5) percent opacity, as a three-minute average.

**Applicable Compliance Method:**

Compliance with the visible emission limitation above shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction procedures specified in OAC rule 3745-17-03(B)(3)(a) shall be used.

**1.e Emission Limitation:**

4.20 lbs of VOC/hr and 18.40 TPY

**Applicable Compliance Method:**

Compliance with the hourly VOC emission limitation above shall be determined using an emission factor of 4.20 lbs/ton of sand employed and a maximum sand throughput rate of 1.0 ton/hr. The annual emission limitation was created by multiplying the hourly emission limitation by 8,760 hrs/yr and dividing by 2,000 lbs/ton.

**VI. Miscellaneous Requirements**

none

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P901 - Laempe III (L-20) cold box core making	OAC rule 3745-31-05	Air Toxics Policy, see below.

**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 (P901) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: methyl formate

TLV (mg/m3): 270.579

Maximum Hourly Emission Rate (lbs/hr): 4.20 lbs/hr

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 41.36

MAGLC (ug/m3): 6,442

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.).

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.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
  - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

#### **IV. Reporting Requirements**

none

**Ross Sand Casting Industry, LLC**

**PTI Application: 02-21528**

**Issued: 1/10/2006**

**Facility ID: 0285010034**

Emissions Unit ID: P901

**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>
P902 - Laempe II (L-5) cold box core making  Particulate emissions are partially controlled by a wet scrubber.	OAC rule 3745-31-05(A)(3)	fugitive particulate emissions (PE) shall not exceed 0.048 TPY  0.01 gr/dscf from the scrubber stack (this equates to 0.042 lb/hr and 0.19 TPY for this emissions unit)  Visible emissions from the scrubber stack shall not exceed five (5) percent opacity, as a six-minute average.  Visible emissions of fugitive dust from this emissions unit shall not exceed five (5) percent opacity, as a three-minute average.  0.65 lb of volatile organic compounds (VOC)/hr and 2.85 TPY
	OAC rule 3745-17-11(B)	The emission limitation established in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3). See section A.I.2.a.
	OAC rule 3745-17-07(A)	In accordance with OAC rule 3745-17-07(A)(3)(h), the requirements of OAC rule 3745-17-07(A)(1) shall not apply to this emissions unit.

OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
OAC rule 3745-17-07(B)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.
OAC rule 3745-21-07(G)	See section A.I.2.a.

**2. Additional Terms and Conditions**

- 2.a** In accordance with OAC rule 3745-17-11(A)(2)(a)(ii), "Figure II" of OAC rule 3745-17-11 shall not apply to this emissions unit because the uncontrolled particulate matter emissions are less than 10 pounds per hour. In accordance with OAC rule 3745-17-11(A)(2)(b)(ii), "Table I" of OAC rule 3745-17-11 shall not apply to this emissions unit because it is located in Wayne County.
- 2.b** The resins and other liquid organic materials used in this emissions unit shall not contain any photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5).
- 2.c** The hourly and annual VOC emission limitations above are based on the emissions unit's potential to emit. Therefore, no records are required to be maintained to demonstrate compliance with these limits.

**II. Operational Restrictions**

- 1. The pressure drop across the scrubber shall be continuously maintained within a range of 2 to 8 inches of water column at all times while the emissions unit is in operation.

**III. Monitoring and/or Recordkeeping Requirements**

- 1. The permittee shall keep the following daily records for all materials used in this emissions unit:
  - a. An identification of each chemical compound in each organic material and its physical state.
  - b. For any liquid organic materials, documentation as to whether or not the material is a photochemically reactive material as defined in OAC rule 3745-21-01(C)(5).
- 2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber while the emissions unit is in operation.

The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

- a. The pressure drop across the scrubber, in inches of water.
- b. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day during which any photochemically reactive materials were employed.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the pressure drop across the scrubber was not maintained within the required range.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:  
fugitive PE shall not exceed 0.048 TPY

Applicable Compliance Method:

Compliance with the annual fugitive emission limitation above shall be determined using an emission factor of 1.07 lbs/ton of sand employed, the maximum sand production rate of 8,760 tons/yr, and a capture efficiency of the control system of 99%. The emission factor was created by summing an emission factor of 0.72 lb/ton from AP-42, Table 11.12-2 for the bin vent and 0.35 lb/ton from RACM, Table 2.7-1 for core making.

- 1.b Emission Limitation:  
0.01 gr/dscf from the scrubber stack (this equates to 0.042 lb/hr and 0.19 TPY for this emissions unit)

Applicable Compliance Method:

If required, compliance with the emission limitation above shall be determined through stack testing using Method 5 of 40 CFR, Part 60, Appendix A. The annual emission limitation was created by multiplying the hourly emission limitation by 8,760 hrs/yr and dividing by 2,000 lbs/ton.

- 1.c Emission Limitation:  
Visible emissions from the scrubber stack shall not exceed five (5) percent opacity, as a six-minute average.

Applicable Compliance Method:

Compliance with the visible emission limitation above shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

1.d Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed five (5) percent opacity, as a three-minute average.

Applicable Compliance Method:

Compliance with the visible emission limitation above shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction procedures specified in OAC rule 3745-17-03(B)(3)(a) shall be used.

1.e Emission Limitation:

0.65 lbs of VOC/hr and 2.85 TPY

Applicable Compliance Method:

Compliance with the hourly VOC emission limitation above shall be determined using an emission factor of 0.65 lb/ton of sand employed and a maximum sand throughput rate of 1 ton/hr. The annual emission limitation was created by multiplying the hourly emission limitation by 8,760 hrs/yr and dividing by 2,000 lbs/ton.

**VI. Miscellaneous Requirements**

none

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P902 - Laempe II (L-5) cold box core making	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>
<p>P903 - Super 22 shotblast machine controlled by a baghouse</p> <p>This baghouse also controls emissions from emissions units P011, P014, P019, P029, P030 and P904.</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>2.72 TPY of fugitive particulate emissions (PE)</p> <p>0.01 gr/dscf of PE from the baghouse stack (this equates to 0.34 lb/hr and 1.49 TPY for this emissions unit)</p> <p>Visible emissions from the baghouse stack shall not exceed five (5) percent opacity, as a six-minute average.</p> <p>Visible emissions of fugitive dust from this emissions unit shall not exceed five (5) percent opacity, as a three-minute average.</p>
	<p>OAC rules 3745-17-11(B), 3745-17-07(A)</p>	<p>The emission limitations specified in these rules are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3).</p>
	<p>OAC rule 3745-17-07(B)</p>	<p>In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.</p>
	<p>OAC rule 3745-17-08(B)</p>	<p>In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.</p>

## **2. Additional Terms and Conditions**

- 2.a** The doors of this blast unit shall remain closed during all times of operation and after operation ceases until such time that fugitive emissions are minimized or eliminated.
- 2.b** The annual emission limitation specified above is based on the emissions unit's potential to emit. Therefore, no records are required to demonstrate compliance with this limitation.

## **II. Operational Restrictions**

- 1. The pressure drop across the baghouse shall be maintained within the range of 2 to 8 inches of water column at all times while the emissions unit is in operation.

## **III. Monitoring and/or Recordkeeping Requirements**

- 1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall collect and record the pressure drop across the baghouse once each day.
- 2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

#### **IV. Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. These reports shall be submitted in accordance with the General Terms and Conditions of this permit.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible fugitive particulate emissions were observed from the from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to minimize or eliminate the visible particulate and/or visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **V. Testing Requirements**

1. Compliance with the emission limitations specified in section A.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
2.72 TPY of fugitive PE  
  
Applicable Compliance Method:  
Compliance with the fugitive emission limitation above shall be determined using an emission factor of 15.50 lb/ton from Bernard S. Gutow article, Modern Castings 1972, a maximum process weight of 8.0 tons/hr and a capture efficiency of 99.5 percent for the control system.
  - 1.b Emission Limitation:  
0.01 gr/dscf of PE from the baghouse stack (this equates to 0.34 lb/hr and 1.49 TPY for this emissions unit)  
  
Applicable Compliance Method:  
Compliance with the emission limitation above shall be determined through stack testing as specified for the baghouse serving this emissions unit in the terms and conditions of the permittee's Title V permit issued August 14, 2002 for P011, P014, and P019. The annual emission limitation was created by multiplying the hourly emission limitation by 8,760 hrs/yr and dividing by 2,000 lbs/ton.
  - 1.c Emission Limitation:  
Visible emissions from the baghouse stack shall not exceed five (5) percent opacity, as a six-minute average.

Applicable Compliance Method:

**Ross Sand Casting Industry, LLC**

**PTI Application: 02-21528**

**Issued: 1/10/2006**

**Facility ID: 0285010034**

Emissions Unit ID: P903

Compliance with the visible emission limitation above shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

1.d Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed five (5) percent opacity, as a three-minute average.

Applicable Compliance Method:

Compliance with the visible emission limitation above shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction procedures specified in OAC rule 3745-17-03(B)(3)(a) shall be used.

**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>
P903 - Super 22 shotblast machine controlled by a baghouse	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>
<p>P904 Super 28 shotblast machine controlled by a baghouse</p> <p>This baghouse also controls emissions from emissions units P011, P014, P019, P029, P030 and P903.</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>3.42 TPY of fugitive particulate emissions (PE)</p> <p>0.01 gr/dscf of PE from the baghouse stack (this equates to 0.34 lb/hr and 1.49 TPY for this emissions unit)</p> <p>Visible emissions from the baghouse stack shall not exceed five (5) percent opacity, as a six-minute average.</p> <p>Visible emissions of fugitive dust from this emissions unit shall not exceed five (5) percent opacity, as a three-minute average.</p>
	<p>OAC rules 3745-17-11(B), 3745-17-07(A)</p>	<p>The emission limitations specified in these rules are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3).</p>
	<p>OAC rule 3745-17-07(B)</p>	<p>In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.</p>
	<p>OAC rule 3745-17-08(B)</p>	<p>In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.</p>

## **2. Additional Terms and Conditions**

- 2.a** The doors of this blast unit shall remain closed during all times of operation and after operation ceases until such time that fugitive emissions are minimized or eliminated.
- 2.b** The annual emission limitation specified above is based on the emissions unit's potential to emit. Therefore, no records are required to demonstrate compliance with this limitation.

## **II. Operational Restrictions**

- 1. The pressure drop across the baghouse shall be maintained within the range of 2 to 8 inches of water column at all times while the emissions unit is in operation.

## **III. Monitoring and/or Recordkeeping Requirements**

- 1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall collect and record the pressure drop across the baghouse once each day.
- 2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

#### **IV. Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. These reports shall be submitted in accordance with the General Terms and Conditions of this permit.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible fugitive particulate emissions were observed from the from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to minimize or eliminate the visible particulate and/or visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **V. Testing Requirements**

1. Compliance with the emission limitations specified in section A.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
3.42 TPY of fugitive PE  
  
Applicable Compliance Method:  
Compliance with the fugitive emission limitation above shall be determined using an emission factor of 15.50 lb/ton from Bernard S. Gutow article, Modern Castings 1972, a maximum process weight of 10.0 tons/hr and a capture efficiency of 99.5 percent for the control system.
  - 1.b Emission Limitation:  
0.01 gr/dscf of PE from the baghouse stack (this equates to 0.34 lb/hr and 1.49 TPY for this emissions unit)  
  
Applicable Compliance Method:  
Compliance with the emission limitation above shall be determined through stack testing as specified for the baghouse serving this emissions unit in the terms and conditions of the permittee's Title V permit issued August 14, 2002 for emissions units P011, P014, P019. The annual emission limitation was created by multiplying the hourly emission limitation by 8,760 hrs/yr and dividing by 2,000 lbs/ton.
  - 1.c Emission Limitation:  
Visible emissions from the baghouse stack shall not exceed five (5) percent opacity, as a six-minute average.

Applicable Compliance Method:

**Ross Sand Casting Industry, LLC**

**PTI Application: 02-21528**

**Issued: 1/10/2006**

**Facility ID: 0285010034**

Emissions Unit ID: P904

Compliance with the visible emission limitation above shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

1.d Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed five (5) percent opacity, as a three-minute average.

Applicable Compliance Method:

Compliance with the visible emission limitation above shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction procedures specified in OAC rule 3745-17-03(B)(3)(a) shall be used.

**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>
P904 - Super 28 shotblast machine controlled by a baghouse	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