State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
50 West Town Street, Suite 700
Columbus, OH 43215

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

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

02/16/07

RE: Proposed Title V Chapter 3745-77 Permit
03-06-01-0004
St. Marys Foundry Inc.

Attn: Stacey Coburn AR-18J
United States Environmental Protection Agency
Region V
77 West Jackson Blvd.
Chicago, IL 60604-3590

Dear Ms. Coburn:

The proposed issuance of the Title V permit for St. Marys Foundry Inc., has been created in Ohio EPA's State Air Resources System (STARS) on 02/16/07, for review by USEPA. This proposed action is identified in STARS as 3-Title V Proposed Permit T+C covering the facility specific terms and conditions, and Title V Proposed Permit covering the general terms and conditions. This proposed permit will be processed for issuance as a final action after forty-five (45) days from USEPA's receipt of this certified letter if USEPA does not object to the proposed permit. Please contact me at (614) 644-3631 by the end of the forty-five (45) day review period if you wish to object to the proposed permit.

Very truly yours,

Michael W. Ahern

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

cc: Northwest District Office
File, DAPC PIER

State of Ohio Environmental Protection Agency

PROPOSED TITLE V PERMIT

Issue Date: 02/16/07	Effective Date: To be entered upon final issuance	Expiration Date: To be entered upon final issuance

This document constitutes issuance of a Title V permit for Facility ID: 03-06-01-0004 to:
St. Marys Foundry Inc.
405 E. South St.
St. Marys, OH 45885

Emissions Unit ID (Company ID)/Emissions Unit Activity Description

F001 (C-Core Mixer)
Continuous operation of mixing sand and binders to produce sand finished molds/cores

F002 (Pit-bay Mixer)
Continuous operation of mixing sand and binders to produce sand finished molds/cores

F003 (New-bay Mixer)
Continuous operation of mixing sand and binders to produce sand finished molds/cores

F007 (Charge Handling)
Receiving, unloading and handling of raw material (scrap iron)

F008 (Pit-bay Pouring and Cooling)
Molten metal is tapped from the furnace into a ladle, the ladle is then transported to the Pit Bay mold line, and the molten metal is poured into prepared molds. The molds contain the molten iron within the mold form until it solidifies (cooling).

F009 (New-bay Pouring and Cooling)
Molten metal is tapped from the furnace into a ladle, the ladle is then transported to the New Bay mold line, and the molten metal is poured into prepared molds. The molds contain the molten iron within the mold form until it solidifies (cooling).

F010 (Inoculation)
Inoculation material is added to the molten iron via throw-in bags/buckets, molten iron is poured over top of the bag/bucket

F012 (Coreless Electric Induction Furnace #1)
Melting of pig iron, scrap steel, scrap iron, foundry returns, and alloys through use of a coreless electric induction furnace

F013 (Coreless Electric Induction Furnace #2)
Melting of pig iron, scrap steel, scrap iron, foundry returns, and alloys through use of a coreless electric induction furnace

F015 (5 ton Coreless induction Furnace A)
Melting of pig iron, scrap steel, scrap iron, foundry returns, and alloys through use of a coreless electric induction furnace

F016 (5 ton Coreless induction Furnace B)
Melting of pig iron, scrap steel, scrap iron, foundry returns, and alloys through use of a coreless electric induction furnace

P002 (Shakeout Deck)
Flasks/castings are placed on a vibrating deck to shake the mold sand and core sand loose from the casting, used sand is screened, cleaned, and reused to make new molds

P009 (Tableblast)
Rough clean of castings using steel shot

P011 (Sand Storage and Transfer)
Sand is stored in concrete silos and conveyed pnuematically throughout the facility, sand is received via trucks

P012 (Ball Mill Crusher)
Prepares sand for foundry use by crushing agglomerated sand into useable (grain) sand

P016 (Electric-Heated Thermal Sand Reclamation System)
Reclamation of spent foundry sand through use of an indirect electric radiant heat thermal sand reclamation system with a gas heated center fired temperature controlled exhaust system; hot fluidizing air oxidizes, destroying the binder and organic matter on the sand grains

P018 (Sand Silo for New Bay Mixer)
Silo receives sand from west silo (reclaimed sand) and feeds, via gravity, sand to new bay mixer (mixing of sand and binders)

P019 (Casting Blowout Room)
Excess sand is removed from castings via compressed air and disposed

P020 (Natural Gas Fired Scrap Preheater)
Raw scrap (pig iron, iron, scrap steel, foundry returns) is conveyed into preheater to remove water and residue (combustion of organics) prior to melting

P023 (Tumbleblast Machine (Clean Room))
Rough clean of castings using steel shot (replacement of P022)

R001 (Core/Mold Coating Operations)
Coating is applied to cores and molds via over-pour, swabbing (brush), and portable spray guns, after application, the part is ignited and coating is burned-off

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402
(419) 352-8461

Ohio Environmental Protection Agency

_____

Chris Korleski
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

1. Monitoring and Related Record Keeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.III of Part III of this Title V permit, 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.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

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 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.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

c. The permittee shall submit required reports in the following manner:

i. **All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:**

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year in accordance with General Term and Condition A.1.c.ii below; and each report shall cover the previous calendar quarter (An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c)).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) constitutes a violation of an emission limitation (or control requirement) and, therefore, is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply

reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any scheduled maintenance, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

ii. **Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.IV of Part III of this Title V permit or, in some cases, in Part II of this Title V permit, all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this General Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this General Term and Condition.

See B.6 below if no deviations occurred during the quarter.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

iii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted in the following manner:**

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; General Terms and Conditions: A.2, A.3, A.4, A.6.e, A.7, A.12, A.14, A.18, A.19, A.20, and A.22 of Part I of this Title V permit, as well as any deviations from the requirements in Section A.V or A.VI of Part III of this Title V permit**,** and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable

requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in Part II.A of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with General Term and Condition A.1.c.ii above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.
(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

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 (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."
(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

v. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

2. Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in General Term and Condition A.1.c.i above.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Risk Management Plans

If applicable, the permittee shall 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"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

a. a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or

b. as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

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.
(Authority for term: OAC rule 3745-77-07(A)(5))

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.
(Authority for term: OAC rule 3745-77-07(A)(6))

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, in accordance with A.10 below. 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.

f. Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable upon final issuance of all applicable OAC Chapter 3745-35 operating permits and/or registrations for all subject emissions units located at the facility and:

   i. the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a “major source” as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or

   ii. the permittee no longer meets the definition of a “major source” as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or

   iii. a combination of i. and ii. above.

   The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.
   (Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

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.
(Authority for term: OAC rule 3745-77-07(A)(8))

8. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))

9. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.
(Authority for term: OAC rule 3745-77-07(A)(10))

10. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

11. 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.
(Authority for term: OAC rule 3745-77-07(B))

12. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V 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 paragraph (E) of OAC rule 3745-77-03.

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.

d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:

i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted (i.e., postmarked) on or before April 30th of each year during the permit term.

ii. Compliance certifications shall include the following:

(a) An identification of each term or condition of this permit that is the basis of the certification.

(b) The permittee's current compliance status.

(c) Whether compliance was continuous or intermittent.

(d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.

(e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

13. Permit Shield

a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

14. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

15. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.
(Authority for term: OAC rule 3745-77-07(G))

16. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.

b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).

d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.
(Authority for term: OAC rule 3745-77-07(I))

17. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.
(This term is provided for informational purposes only.)

18. Insignificant Activities or Emissions Levels

Each IEU that has one or more applicable requirements shall comply with those applicable requirements.
(Authority for term: OAC rule 3745-77-07(A)(1))

19. Permit to Install Requirement

Prior to the “installation” or “modification” of any “air contaminant source,” as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.
(Authority for term: OAC rule 3745-77-07(A)(1))

20. 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.
(Authority for term: OAC rule 3745-77-07(A)(1))

21. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the responsible official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

No emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.
(Authority for term: OAC rule 3745-77-01)

22. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

B. ***State Only Enforceable Section***

1. Reporting Requirements Related to Monitoring and Record Keeping Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or record keeping 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 (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) 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. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. 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.)

2. Records Retention Requirements

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.

3. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. 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 verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

4. 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 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. 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 emissions unit(s) that is (are) served by such control system(s).

5. 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.

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

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation 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) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

a. where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in General Term and Condition A.1.c.ii; or

b. where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; or

c. where the company's responsible official has certified that an emissions unit has been permanently shut down.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforceable Section

1. Pursuant to 40 CFR Part 64, the permittee has submitted, and the Ohio EPA has approved a compliance assurance monitoring plan for emissions units P002, P011, P012, and P018 at this facility. The permittee shall comply with the provisions of the plan during any operation of the aforementioned emissions unit.
(Authority for term: 40 CFR Part 64)

2. The following insignificant emissions units are located at this facility:

B001 - Air Make-up Unit 1
B002 - Air Make-up Unit 2
F004 * - A/B Core Mixer (Lake) (PTI 03-10079)
F005 * - A/B Core Mixer (Olivine) (PTI 03-10079)
F006 - Sand Storage Pile (PTI 03-13285)
P006 - Woodworking Machine
P015 - B-Core Sand Storage Silos, Conveying (PTI 03-6077)
P021 - Arc-Air Room (Thermal Cutting) (PTI 03-13473)
Z019 - 40 Ton C-Core Sand Storage Silo
Z020 - 20 Ton C-Core Sand Storage Silo

* See also requirements for emissions units F001, F002, F003

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, and well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more of the applicable requirements contained in the federally-approved versions of OAC Chapters 3745-17, 3745-18, and/or 3745-21.
(Authority for term: OAC rule 3745-77-07(A)(13))

B. State Only Enforceable Section

1. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirement (as defined in OAC rule 3745-77-01(H)) or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

F011 - Paved Roads
P005 - Core Oven
Z021 - Slag Handling Operations
Z022 - Parting Spray

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: C-Core Mixer (F001)

Activity Description: Continuous operation of mixing sand and binders to produce sand finished molds/cores

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Sand / Binder In-line Mixer (C-core)	OAC rule 3745-31-05(A)(3) (PTI 03-10079 as modified on January 2, 2007)	2.08 lbs fugitive particulate emissions (PE) /hr, 9.13 tons/yr 1.04 lbs fugitive particulate matter less than 10 microns (PM10) /hr, 4.56 tons/yr 2.30 lbs fugitive organic compounds (OC) /hr, 10.1 tons/yr Visible fugitive PE shall not exceed 20% opacity, as a three-minute average.
	OAC rule 3745-77-07(B)(1)	8.0 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 20.0 tons per rolling 12-month period for any combination of HAPs [for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined] (See A.I.2.a)
	OAC rule 3745-17-08(B)	none (See A.I.2.b)
	OAC rule 3745-17-07(B)	none (See A.I.2.c)
	OAC rule 3745-21-07	none (See A.I.2.d)

2. Additional Terms and Conditions

2.a The emissions of HAPs from emission units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined, shall not exceed 8.0 tons per year for an individual HAP and 20.0 tons per year for any combination of HAPs, based upon a rolling 12-month summation of the monthly emissions.

As long as compliance with the input restrictions in Section A.II.1 is maintained, compliance with the 8.0 ton/yr individual HAP limit shall be assumed (based on "CERP Organic HAP Emission Measurements for Iron Foundries and Their Use in Development of an AFS HAP Guidance Document", 2006), i.e. the study shows that individual HAP emissions distribution at iron foundries is such that: where the total combined HAPs are below 20 tons per year, the highest emission of any individual HAP will be below 8 tons per year

Hazardous Air Pollutant (HAP) means any air pollutant listed in or pursuant to Section 112 (b) of the Clean Air Act.

2.b The emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

2.c This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

2.d This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234, i.e. this emissions unit does not employ, apply, evaporate or dry liquid organic materials.

2.e The 2.30 lbs OC /hr and 10.1 tons OC /yr emission limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop any additional monitoring, record keeping or reporting requirements to ensure compliance with these emission limitations.

II. Operational Restrictions

1. The sand throughput for emissions units F001, F002, F003, F004*, and F005* combined shall not exceed 120,000 tons per rolling 12-month period.

* F004 and F005 are 'insignificant' emissions units at this facility - see also Part II of this permit.
[OAC rule 3745-77-07(A)(1)]

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, 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 fugitive 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.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall collect and record the following information each month for emissions units F001, F002, F003, F004, and F005, combined:

a. the number of tons of foundry sand throughput;

b. the total HAP emission rate, in pounds, calculated as follows:

HAP emissions (lbs/month) = (tons of sand throughput) x EF

where EF = 0.102 lb total HAP per ton sand throughput *

* based on OC information supplied by the binder system manufacturer, which was based on Ohio Cast Metals Association test protocol (assume conservatively that all OC is HAP)
[OAC rule 3745-77-07(C)(1)]

3. The permittee shall collect and record the following information regarding HAP emissions each month for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined:

a. the total HAP emission rate (summation of A.III.2.b, for all emissions units as listed above), in tons; and

b. the rolling 12-month emissions of total HAPs, in tons.
[OAC rule 3745-77-07(C)(1)]

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

2. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month combined HAPs emission limitation of 20.0 tons (for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined).

These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
[OAC rule 3745-77-07(C)(1)]

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitations:
2.08 lb fugitive PE/hr
9.13 tons fugitive PE/yr

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum sand throughput rate of 22.5 tons per hour by an emission factor of 0.3 lb PE /ton (Table 2.7-1 of Ohio EPA Reasonably Available Control Measures (RACM) for Fugitive Dust Sources, August 1983), and then multiplying by (1 - 0.7).*

* adjusting for 70% control efficiency for building enclosure, estimated from Table 2.7-8 of Ohio EPA Reasonably Available Control Measures (RACM) for Fugitive Dust Sources, August 1983

The annual allowable PE limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is shown, compliance with the annual limitation shall be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.b Emission Limitations:
1.04 lb fugitive PM10/hr
4.56 tons fugitive PM10/yr

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum sand throughput rate of 22.5 tons per hour by an emission factor of 0.045 lb PE /ton (Table 2.7-1 of Ohio EPA Reasonably Available Control Measures (RACM) for Fugitive Dust Sources, August 1983 - estimate not more than 15% of PE is PM10).

The annual allowable PM10 limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is shown, compliance with the annual limitation shall be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.c Emission Limitations:
2.30 lb fugitive OC/hr
10.1 tons fugitive OC/yr

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum sand throughput rate of 22.5 tons per hour by an emission factor of 0.102 lb OC /ton (binder system manufacturer emission factor, based on Ohio Cast Metals Association test protocol)

The annual allowable OC limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is shown, compliance with the annual limitation shall be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.d Emission Limitations:
Visible fugitive PE shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method:
If required, compliance shall be determined by visible emission evaluations performed in accordance with USEPA Reference Method 9 as set forth in "Appendix A on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraph (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03(B)(3).
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

V. Testing Requirements (continued)

1.e Emission Limitations:
20.0 tons per rolling 12-month period for any combination of HAPs (for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined)

Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements as specified in sections A.III.2 and 3. [OAC rule 3745-77-07(C)(1)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Sand / Binder In-line Mixer (C-core)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Pit-bay Mixer (F002)

Activity Description: Continuous operation of mixing sand and binders to produce sand finished molds/cores

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Sand / Binder In-line Mixer (Pit-bay)	OAC rule 3745-31-05(A)(3) (PTI 03-10079 as modified on January 2, 2007)	2.78 lbs fugitive particulate emissions (PE) /hr, 12.2 tons/yr 1.38 lbs fugitive particulate matter less than 10 microns (PM10) /hr, 6.04 tons/yr 3.06 lbs fugitive organic compounds (OC) /hr, 13.4 tons/yr Visible fugitive PE shall not exceed 20% opacity, as a three-minute average.
	OAC rule 3745-77-07(B)(1)	8.0 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 20.0 tons per rolling 12-month period for any combination of HAPs [for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined] (See A.I.2.a)
	OAC rule 3745-17-08(B)	none (See A.I.2.b)
	OAC rule 3745-17-07(B)	none (See A.I.2.c)
	OAC rule 3745-21-07	none (See A.I.2.d)

2. Additional Terms and Conditions

2.a The emissions of HAPs from emission units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined, shall not exceed 8.0 tons per year for an individual HAP and 20.0 tons per year for any combination of HAPs, based upon a rolling 12-month summation of the monthly emissions.

As long as compliance with the input restrictions in Section A.II.1 is maintained, compliance with the 8.0 ton/yr individual HAP limit shall be assumed (based on "CERP Organic HAP Emission Measurements for Iron Foundries and Their Use in Development of an AFS HAP Guidance Document", 2006), i.e. the study shows that individual HAP emissions distribution at iron foundries is such that: where the total combined HAPs are below 20 tons per year, the highest emission of any individual HAP will be below 8 tons per year

Hazardous Air Pollutant (HAP) means any air pollutant listed in or pursuant to Section 112 (b) of the Clean Air Act.

2.b The emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

2.c This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

2.d This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234, i.e. this emissions unit does not employ, apply, evaporate or dry liquid organic materials.

2.e The 3.06 lbs OC /hr and 13.4 tons OC /yr emission limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop any additional monitoring, record keeping or reporting requirements to ensure compliance with these emission limitations.

II. Operational Restrictions

1. The sand throughput for emissions units F001, F002, F003, F004*, and F005* combined shall not exceed 120,000 tons per rolling 12-month period.

* F004 and F005 are 'insignificant' emissions units at this facility - see also Part II of this permit.
[OAC rule 3745-77-07(A)(1)]

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, 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 fugitive 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.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall collect and record the following information each month for emissions units F001, F002, F003, F004, and F005, combined:

a. the number of tons of foundry sand throughput;

b. the total HAP emission rate, in pounds, calculated as follows:

HAP emissions (lbs/month) = (tons of sand throughput) x EF

where EF = 0.102 lb total HAP per ton sand throughput *

* based on OC information supplied by the binder system manufacturer, which was based on Ohio Cast Metals Association test protocol (assume conservatively that all OC is HAP)
[OAC rule 3745-77-07(C)(1)]

3. The permittee shall collect and record the following information regarding HAP emissions each month for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined:

a. the total HAP emission rate (summation of A.III.2.b, for all emissions units as listed above), in tons; and

b. the rolling 12-month emissions of total HAPs, in tons.
[OAC rule 3745-77-07(C)(1)]

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

2. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month combined HAPs emission limitation of 20.0 tons (for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined).

These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
[OAC rule 3745-77-07(C)(1)]

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitations:
2.78 lb fugitive PE/hr
12.2 tons fugitive PE/yr

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum sand throughput rate of 30 tons per hour by an emission factor of 0.3 lb PE /ton (Table 2.7-1 of Ohio EPA Reasonably Available Control Measures (RACM) for Fugitive Dust Sources, August 1983), and then multiplying by (1 - 0.7).*

* adjusting for 70% control efficiency for building enclosure, estimated from Table 2.7-8 of Ohio EPA Reasonably Available Control Measures (RACM) for Fugitive Dust Sources, August 1983

The annual allowable PE limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is shown, compliance with the annual limitation shall be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.b Emission Limitations:
1.38 lb fugitive PM10/hr
6.04 tons fugitive PM10/yr

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum sand throughput rate of 30 tons per hour by an emission factor of 0.045 lb PE /ton (Table 2.7-1 of Ohio EPA Reasonably Available Control Measures (RACM) for Fugitive Dust Sources, August 1983 - estimate not more than 15% of PE is PM10).

The annual allowable PM10 limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is shown, compliance with the annual limitation shall be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.c Emission Limitations:
3.06 lb fugitive OC/hr
13.4 tons fugitive OC/yr

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum sand throughput rate of 30 tons per hour by an emission factor of 0.102 lb OC /ton (binder system manufacturer emission factor, based on Ohio Cast Metals Association test protocol)

The annual allowable OC limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is shown, compliance with the annual limitation shall be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.d Emission Limitations:
Visible fugitive PE shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method:
If required, compliance shall be determined by visible emission evaluations performed in accordance with USEPA Reference Method 9 as set forth in "Appendix A on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraph (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03(B)(3).
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

V. Testing Requirements (continued)

1.e Emission Limitations:
20.0 tons per rolling 12-month period for any combination of HAPs (for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined)

Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements as specified in sections A.III.2 and 3. [OAC rule 3745-77-07(C)(1)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Sand / Binder In-line Mixer (Pit-bay)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: New-bay Mixer (F003)

Activity Description: Continuous operation of mixing sand and binders to produce sand finished molds/cores

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Sand / Binder In-line Mixer (New-bay)	OAC rule 3745-31-05(A)(3) (PTI 03-10079 as modified on January 2, 2007)	2.50 lbs fugitive particulate emissions (PE) /hr, 11.0 tons/yr 1.24 lbs fugitive particulate matter less than 10 microns (PM10) /hr, 5.43 tons/yr 2.75 lbs fugitive organic compounds (OC) /hr, 12.1 tons/yr Visible fugitive PE shall not exceed 20% opacity, as a three-minute average.
	OAC rule 3745-77-07(B)(1)	8.0 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 20.0 tons per rolling 12-month period for any combination of HAPs [for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined] (See A.I.2.a)
	OAC rule 3745-17-08(B)	none (See A.I.2.b)
	OAC rule 3745-17-07(B)	none (See A.I.2.c)
	OAC rule 3745-21-07	none (See A.I.2.d)

2. Additional Terms and Conditions

2.a The emissions of HAPs from emission units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined, shall not exceed 8.0 tons per year for an individual HAP and 20.0 tons per year for any combination of HAPs, based upon a rolling 12-month summation of the monthly emissions.

As long as compliance with the input restrictions in Section A.II.1 is maintained, compliance with the 8.0 ton/yr individual HAP limit shall be assumed (based on "CERP Organic HAP Emission Measurements for Iron Foundries and Their Use in Development of an AFS HAP Guidance Document", 2006), i.e. the study shows that individual HAP emissions distribution at iron foundries is such that: where the total combined HAPs are below 20 tons per year, the highest emission of any individual HAP will be below 8 tons per year

Hazardous Air Pollutant (HAP) means any air pollutant listed in or pursuant to Section 112 (b) of the Clean Air Act.

2.b The emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

2.c This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

2.d This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234, i.e. this emissions unit does not employ, apply, evaporate or dry liquid organic materials.

2.e The 2.75 lbs OC /hr and 12.1 tons OC /yr emission limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop any additional monitoring, record keeping or reporting requirements to ensure compliance with these emission limitations.

II. Operational Restrictions

1. The sand throughput for emissions units F001, F002, F003, F004*, and F005* combined shall not exceed 120,000 tons per rolling 12-month period.

* F004 and F005 are 'insignificant' emissions units at this facility - see also Part II of this permit.
[OAC rule 3745-77-07(A)(1)]

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, 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 fugitive 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.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall collect and record the following information each month for emissions units F001, F002, F003, F004, and F005, combined:

a. the number of tons of foundry sand throughput;

b. the total HAP emission rate, in pounds, calculated as follows:

HAP emissions (lbs/month) = (tons of sand throughput) x EF

where EF = 0.102 lb total HAP per ton sand throughput *

* based on OC information supplied by the binder system manufacturer, which was based on Ohio Cast Metals Association test protocol (assume conservatively that all OC is HAP)
[OAC rule 3745-77-07(C)(1)]

3. The permittee shall collect and record the following information regarding HAP emissions each month for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined:

a. the total HAP emission rate (summation of A.III.2.b, for all emissions units as listed above), in tons; and

b. the rolling 12-month emissions of total HAPs, in tons.
[OAC rule 3745-77-07(C)(1)]

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

2. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month combined HAPs emission limitation of 20.0 tons (for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined).

These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
[OAC rule 3745-77-07(C)(1)]

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitations:
2.50 lb fugitive PE/hr
11.0 tons fugitive PE/yr

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum sand throughput rate of 27 tons per hour by an emission factor of 0.3 lb PE /ton (Table 2.7-1 of Ohio EPA Reasonably Available Control Measures (RACM) for Fugitive Dust Sources, August 1983), and then multiplying by (1 - 0.7).*

* adjusting for 70% control efficiency for building enclosure, estimated from Table 2.7-8 of Ohio EPA Reasonably Available Control Measures (RACM) for Fugitive Dust Sources, August 1983

The annual allowable PE limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is shown, compliance with the annual limitation shall be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.b Emission Limitations:
1.24 lb fugitive PM10/hr
5.43 tons fugitive PM10/yr

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum sand throughput rate of 27 tons per hour by an emission factor of 0.045 lb PE /ton (Table 2.7-1 of Ohio EPA Reasonably Available Control Measures (RACM) for Fugitive Dust Sources, August 1983 - estimate not more than 15% of PE is PM10).

The annual allowable PM10 limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is shown, compliance with the annual limitation shall be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.c Emission Limitations:
2.75 lb fugitive OC/hr
12.1 tons fugitive OC/yr

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum sand throughput rate of 27 tons per hour by an emission factor of 0.102 lb OC /ton (binder system manufacturer emission factor, based on Ohio Cast Metals Association test protocol)

The annual allowable OC limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is shown, compliance with the annual limitation shall be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.d Emission Limitations:
Visible fugitive PE shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method:
If required, compliance shall be determined by visible emission evaluations performed in accordance with USEPA Reference Method 9 as set forth in "Appendix A on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraph (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03(B)(3).
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

V. Testing Requirements (continued)

1.e Emission Limitations:
20.0 tons per rolling 12-month period for any combination of HAPs (for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined)

Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements as specified in A.III.2 and 3.
[OAC rule 3745-77-07(C)(1)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Sand / Binder In-line Mixer (New-bay)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Charge Handling (F007)

Activity Description: Receiving, unloading and handling of raw material (scrap iron)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Charge Handling (for induction furnaces)	OAC rule 3745-17-08(B)	none (See A.I.2.a)
	OAC rule 3745-17-07(B)	none (See A.I.2.b)

2. Additional Terms and Conditions

2.a The emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

2.b This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Charge Handling (for induction furnaces)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Pit-bay Pouring and Cooling (F008)

Activity Description: Molten metal is tapped from the furnace into a ladle, the ladle is then transported to the Pit Bay mold line, and the molten metal is poured into prepared molds. The molds contain the molten iron within the mold form until it solidifies (cooling).

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Iron Pouring and Cooling (Pit-bay)	OAC rule 3745-77-07(B)(1)	8.0 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 20.0 tons per rolling 12-month period for any combination of HAPs [for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined] (See A.I.2.a)
	OAC rule 3745-17-08(B)	none (See A.I.2.b)
	OAC rule 3745-17-07(B)	none (See A.I.2.c)
	OAC rule 3745-21-07	none (See A.I.2.d)

2. Additional Terms and Conditions

2.a The emissions of HAPs from emission units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined, shall not exceed 8.0 tons per year for an individual HAP and 20.0 tons per year for any combination of HAPs, based upon a rolling 12-month summation of the monthly emissions.

As long as compliance with the input restrictions in Section A.II.1 is maintained, compliance with the 8.0 ton/yr individual HAP limit shall be assumed (based on "CERP Organic HAP Emission Measurements for Iron Foundries and Their Use in Development of an AFS HAP Guidance Document", 2006), i.e. the study shows that individual HAP emissions distribution at iron foundries is such that: where the total combined HAPs are below 20 tons per year, the highest emission of any individual HAP will be below 8 tons per year

Hazardous Air Pollutant (HAP) means any air pollutant listed in or pursuant to Section 112 (b) of the Clean Air Act.

2.b The emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

2.c This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

2.d This facility is not located in a "Priority I" county (it is located in Auglaize County) as indicated in paragraph (A) of OAC rule 3745-21-06, and is not a "new source". Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07.

II. Operational Restrictions

1. The iron throughput for emissions units F008 and F009 combined shall not exceed 14,400 tons per rolling 12-month period.
[OAC rule 3745-77-07(A)(1)]

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each month for emissions units F008 and F009 combined:

a. the number of tons of molten iron throughput;

b. the total HAP emission rate, in pounds, calculated as follows:

HAP emissions (lbs/month) = (tons of iron throughput) x EF

where EF = 1.08 lb total HAP per ton iron throughput *

* American Foundry Society Paper 06-031(10), Table 2 (2001)
[OAC rule 3745-77-07(C)(1)]

2. The permittee shall collect and record the following information regarding HAP emissions each month for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined:

a. the total HAP emission rate (summation of A.III.1.b, for all emissions units as listed above), in tons; and

b. the rolling 12-month emissions of total HAPs, in tons.
[OAC rule 3745-77-07(C)(1)]

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month combined HAPs emission limitation of 20.0 tons (for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined).

These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
[OAC rules 3745-77-07(C)(1)]

V. Testing Requirements

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

Emission Limitations:
20.0 tons per rolling 12-month period for any combination of HAPs (for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined)

Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements as specified in sections A.III.
[OAC rule 3745-77-07(C)(1)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Iron Pouring and Cooling (Pit-bay)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: New-bay Pouring and Cooling (F009)

Activity Description: Molten metal is tapped from the furnace into a ladle, the ladle is then transported to the New Bay mold line, and the molten metal is poured into prepared molds. The molds contain the molten iron within the mold form until it solidifies (cooling).

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Iron Pouring and Cooling (New-bay)	OAC rule 3745-77-07(B)(1)	8.0 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 20.0 tons per rolling 12-month period for any combination of HAPs [for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined] (See A.I.2.a)
	OAC rule 3745-17-08(B)	none (See A.I.2.b)
	OAC rule 3745-17-07(B)	none (See A.I.2.c)
	OAC rule 3745-21-07	none (See A.I.2.d)

2. Additional Terms and Conditions

2.a The emissions of HAPs from emission units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined, shall not exceed 8.0 tons per year for an individual HAP and 20.0 tons per year for any combination of HAPs, based upon a rolling 12-month summation of the monthly emissions.

As long as compliance with the input restrictions in Section A.II.1 is maintained, compliance with the 8.0 ton/yr individual HAP limit shall be assumed (based on "CERP Organic HAP Emission Measurements for Iron Foundries and Their Use in Development of an AFS HAP Guidance Document", 2006), i.e. the study shows that individual HAP emissions distribution at iron foundries is such that: where the total combined HAPs are below 20 tons per year, the highest emission of any individual HAP will be below 8 tons per year

Hazardous Air Pollutant (HAP) means any air pollutant listed in or pursuant to Section 112 (b) of the Clean Air Act.

2.b The emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

2.c This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

2.d This facility is not located in a "Priority I" county (it is located in Auglaize County) as indicated in paragraph (A) of OAC rule 3745-21-06, and is not a "new source". Therefore, pursuant to OAC rule 3745-21-07(A), it is exempt from the requirements of OAC rule 3745-21-07.

II. Operational Restrictions

1. The iron throughput for emissions units F008 and F009 combined shall not exceed 14,400 tons per rolling 12-month period.
[OAC rule 3745-77-07(A)(1)]

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each month for emissions units F008 and F009 combined:

a. the number of tons of molten iron throughput;

b. the total HAP emission rate, in pounds, calculated as follows:

HAP emissions (lbs/month) = (tons of iron throughput) x EF

where EF = 1.08 lb total HAP per ton iron throughput *

* American Foundry Society Paper 06-031(10), Table 2 (2001)
[OAC rule 3745-77-07(C)(1)]

2. The permittee shall collect and record the following information regarding HAP emissions each month for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined:

a. the total HAP emission rate (summation of A.III.1.b, for all emissions units as listed above), in tons; and

b. the rolling 12-month emissions of total HAPs, in tons.
[OAC rule 3745-77-07(C)(1)]

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month combined HAPs emission limitation of 20.0 tons (for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined).

These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
[OAC rules 3745-77-07(C)(1)]

V. Testing Requirements

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

Emission Limitations:
20.0 tons per rolling 12-month period for any combination of HAPs (for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined)

Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements as specified in sections A.III.
[OAC rule 3745-77-07(C)(1)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Iron Pouring and Cooling (New-bay)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Inoculation (F010)

Activity Description: Inoculation material is added to the molten iron via throw-in bags/buckets, molten iron is poured over top of the bag/bucket

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Inoculation (for ductile iron)	OAC rule 3745-77-07(B)(1)	8.0 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 20.0 tons per rolling 12-month period for any combination of HAPs [for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined] (See A.I.2.a)
	OAC rule 3745-17-08(B)	none (See A.I.2.b)
Iron Pouring and Cooling (Pit-bay)	OAC rule 3745-17-07(B)	none (See A.I.2.c)

2. Additional Terms and Conditions

2.a The emissions of HAPs from emission units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined, shall not exceed 8.0 tons per year for an individual HAP and 20.0 tons per year for any combination of HAPs, based upon a rolling 12-month summation of the monthly emissions.

As long as compliance with the input restrictions in Section A.II.1 is maintained, compliance with the 8.0 ton/yr individual HAP limit shall be assumed (based on "CERP Organic HAP Emission Measurements for Iron Foundries and Their Use in Development of an AFS HAP Guidance Document", 2006), i.e. the study shows that individual HAP emissions distribution at iron foundries is such that: where the total combined HAPs are below 20 tons per year, the highest emission of any individual HAP will be below 8 tons per year

Hazardous Air Pollutant (HAP) means any air pollutant listed in or pursuant to Section 112 (b) of the Clean Air Act.

2.b The emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

2.c This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

II. Operational Restrictions

1. The iron throughput for this emissions unit shall not exceed 10,800 tons per rolling 12-month period. [OAC rule 3745-77-07(A)(1)]

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each month for this emissions unit:

a. the number of tons of molten iron throughput;

b. the total HAP emission rate, in pounds, calculated as follows:

HAP emissions (lbs/month) = (tons of iron throughput) x EF

where EF = 0.05 lb total HAP per ton iron throughput *

* American Foundry Society Paper 06-031(10), Table 2 (2001)
[OAC rule 3745-77-07(C)(1)]

2. The permittee shall collect and record the following information regarding HAP emissions each month for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined:

a. the total HAP emission rate (summation of A.III.1.b, for all emissions units as listed above), in tons; and

b. the rolling 12-month emissions of total HAPs, in tons.
[OAC rule 3745-77-07(C)(1)]

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month combined HAPs emission limitation of 20.0 tons (for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined).

These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
[OAC rules 3745-77-07(C)(1)]

V. Testing Requirements

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

Emission Limitations:
20.0 tons per rolling 12-month period for any combination of HAPs (for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined)

Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements as specified in sections A.III.
[OAC rule 3745-77-07(C)(1)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Inoculation (for ductile iron)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Coreless Electric Induction Furnace #1 (F012)

Activity Description: Melting of pig iron, scrap steel, scrap iron, foundry returns, and alloys through use of a coreless electric induction furnace

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Electric Induction Furnace (Furnace 1)	OAC rule 3745-31-05(A)(3) (PTI 03-677 issued July 24, 1978)	none (See A.I.2.a)
	OAC rule 3745-77-07(B)(1)	8.0 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 20.0 tons per rolling 12-month period for any combination of HAPs [for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined] (See A.I.2.b)
	OAC rule 3745-17-08(B)	none (See A.I.2.c)
	OAC rule 3745-17-07(B)	none (See A.I.2.d)

2. Additional Terms and Conditions

2.a No specific Best Available Technology (BAT) requirements or emission limitations were established in this Permit to Install for this emissions unit.

2.b The emissions of HAPs from emission units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined, shall not exceed 8.0 tons per year for an individual HAP and 20.0 tons per year for any combination of HAPs, based upon a rolling 12-month summation of the monthly emissions.

As long as compliance with the input restrictions in Section A.II.1 is maintained, compliance with the 8.0 ton/yr individual HAP limit shall be assumed (based on "CERP Organic HAP Emission Measurements for Iron Foundries and Their Use in Development of an AFS HAP Guidance Document", 2006), i.e. the study shows that individual HAP emissions distribution at iron foundries is such that: where the total combined HAPs are below 20 tons per year, the highest emission of any individual HAP will be below 8 tons per year

Hazardous Air Pollutant (HAP) means any air pollutant listed in or pursuant to Section 112 (b) of the Clean Air Act.

2.c The emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

2.d This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

II. Operational Restrictions

1. The iron throughput for emissions units F012, F013, F015, and F016 combined shall not exceed 14,400 tons per rolling 12-month period.
[OAC rule 3745-77-07(A)(1)]

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each month for emissions units F012, F013, F015, and F016, combined:

a. the number of tons of foundry sand throughput;

b. the total HAP emission rate, in pounds, calculated as follows:

HAP emissions (lbs/month) = (tons of sand throughput) x EF
where EF = 0.04 lb total HAP per ton iron throughput *

* American Foundry Society Paper 06-031(10), Table 2 (2001)
[OAC rule 3745-77-07(C)(1)]

2. The permittee shall collect and record the following information regarding HAP emissions each month for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined:

a. the total HAP emission rate (summation of A.III.1.b, for all emissions units as listed above), in tons; and

b. the rolling 12-month emissions of total HAPs, in tons.
[OAC rule 3745-77-07(C)(1)]

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month combined HAPs emission limitation of 20.0 tons (for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined).

These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
[OAC rules 3745-77-07(C)(1)]

V. Testing Requirements

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

Emission Limitations:
20.0 tons per rolling 12-month period for any combination of HAPs (for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined)

Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements as specified in sections A.III.
[OAC rule 3745-77-07(C)(1)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Electric Induction Furnace (Furnace 1)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Coreless Electric Induction Furnace #2 (F013)

Activity Description: Melting of pig iron, scrap steel, scrap iron, foundry returns, and alloys through use of a coreless electric induction furnace

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Electric Induction Furnace (Furnace 2)	OAC rule 3745-31-05(A)(3) (PTI 03-677 issued July 24, 1978)	none (See A.I.2.a)
	OAC rule 3745-77-07(B)(1)	8.0 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 20.0 tons per rolling 12-month period for any combination of HAPs [for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined] (See A.I.2.b)
	OAC rule 3745-17-08(B)	none (See A.I.2.c)
	OAC rule 3745-17-07(B)	none (See A.I.2.d)

2. Additional Terms and Conditions

2.a No specific Best Available Technology (BAT) requirements or emission limitations were established in this Permit to Install for this emissions unit.

2.b The emissions of HAPs from emission units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined, shall not exceed 8.0 tons per year for an individual HAP and 20.0 tons per year for any combination of HAPs, based upon a rolling 12-month summation of the monthly emissions.

As long as compliance with the input restrictions in Section A.II.1 is maintained, compliance with the 8.0 ton/yr individual HAP limit shall be assumed (based on "CERP Organic HAP Emission Measurements for Iron Foundries and Their Use in Development of an AFS HAP Guidance Document", 2006), i.e. the study shows that individual HAP emissions distribution at iron foundries is such that: where the total combined HAPs are below 20 tons per year, the highest emission of any individual HAP will be below 8 tons per year

Hazardous Air Pollutant (HAP) means any air pollutant listed in or pursuant to Section 112 (b) of the Clean Air Act.

2.c The emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

2.d This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

II. Operational Restrictions

1. The iron throughput for emissions units F012, F013, F015, and F016 combined shall not exceed 14,400 tons per rolling 12-month period.
[OAC rule 3745-77-07(A)(1)]

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each month for emissions units F012, F013, F015, and F016, combined:

a. the number of tons of foundry sand throughput;

b. the total HAP emission rate, in pounds, calculated as follows:

HAP emissions (lbs/month) = (tons of sand throughput) x EF
where EF = 0.04 lb total HAP per ton iron throughput *

* American Foundry Society Paper 06-031(10), Table 2 (2001)
[OAC rule 3745-77-07(C)(1)]

2. The permittee shall collect and record the following information regarding HAP emissions each month for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined:

a. the total HAP emission rate (summation of A.III.1.b, for all emissions units as listed above), in tons; and

b. the rolling 12-month emissions of total HAPs, in tons.
[OAC rule 3745-77-07(C)(1)]

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month combined HAPs emission limitation of 20.0 tons (for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined).

These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
[OAC rules 3745-77-07(C)(1)]

V. Testing Requirements

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

Emission Limitations:
20.0 tons per rolling 12-month period for any combination of HAPs (for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined)

Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements as specified in sections A.III.
[OAC rule 3745-77-07(C)(1)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Electric Induction Furnace (Furnace 2)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 5 ton Coreless induction Furnace A□□ (F015)

Activity Description: Melting of pig iron, scrap steel, scrap iron, foundry returns, and alloys through use of a coreless electric induction furnace

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Electric Induction Furnace (Furnace A)	OAC rule 3745-31-05(A)(3) (PTI 03-14073 issued October 28, 2003)	5.62 ton fugitive particulate emissions (PE) /yr (for emissions units F015 and F016 combined) 0.62 ton fugitive lead emissions (Pb) /yr (for emissions units F015 and F016 combined) Visible fugitive PE shall not exceed 20% opacity, as a three-minute average.
	OAC rule 3745-77-07(B)(1)	8.0 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 20.0 tons per rolling 12-month period for any combination of HAPs [for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined] (See A.I.2.a)
	OAC rule 3745-17-08(B)	none (See A.I.2.b)
	OAC rule 3745-17-07(B)	none (See A.I.2.c)

2. Additional Terms and Conditions

2.a The emissions of HAPs from emission units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined, shall not exceed 8.0 tons per year for an individual HAP and 20.0 tons per year for any combination of HAPs, based upon a rolling 12-month summation of the monthly emissions.

As long as compliance with the input restrictions in Section A.II.1 is maintained, compliance with the 8.0 ton/yr individual HAP limit shall be assumed (based on "CERP Organic HAP Emission Measurements for Iron Foundries and Their Use in Development of an AFS HAP Guidance Document", 2006), i.e. the study shows that individual HAP emissions distribution at iron foundries is such that: where the total combined HAPs are below 20 tons per year, the highest emission of any individual HAP will be below 8 tons per year

Hazardous Air Pollutant (HAP) means any air pollutant listed in or pursuant to Section 112 (b) of the Clean Air Act.

2.b The emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

2.c This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

2.d All PE is conservatively assumed to be PM10.

II. Operational Restrictions

1. The iron throughput for emissions units F012, F013, F015, and F016 combined shall not exceed 14,400 tons per rolling 12-month period.
[OAC rule 3745-77-07(A)(1)]

2. The iron throughput for emissions units F015 and F016 combined shall not exceed 12,500 tons per calendar year.
[OAC rule 3745-77-07(A)(1), and 3745-31-05(A)(3)]

3. The permittee shall only process "clean" raw materials in this emissions unit (i.e., free of oils, greases, solvents etc.).
PTI 03-14073

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, 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 fugitive 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.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall collect and record the following information each month for emissions units F012, F013, F015, and F016, combined:

a. the number of tons of foundry sand throughput;

b. the total HAP (organic) emission rate, in pounds, calculated as follows:

HAP emissions (lbs/month) = (tons of sand throughput) x EF
where EF = 0.04 lb total HAP per ton iron throughput *

* American Foundry Society Paper 06-031(10), Table 2 (2001)
[OAC rule 3745-77-07(C)(1)]

3. The permittee shall collect and record the following information each month for emissions units F015 and F016, combined:

a. the number of tons of foundry sand throughput;

b. the total HAP (Pb) emission rate, in pounds, calculated as follows:

HAP emissions (lbs/month) = (tons of sand throughput) x EF
where EF = 0.1 lb total HAP per ton iron throughput *

* US EPA AP-42, Table 12.10-5, January 1995
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

4. The permittee shall collect and record the following information regarding HAP emissions each month for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined:

a. the total HAP emission rate (summation of: A.III.2.b, for all emissions units as listed above; and A.III.3.b, for F015 and F016), in tons; and

b. the rolling 12-month emissions of total HAPs, in tons.
[OAC rule 3745-77-07(C)(1)]

5. The permittee shall maintain records documenting each day during which the processing of materials other than "clean" raw materials occurred.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

2. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month combined HAPs emission limitation of 20.0 tons (for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined).

These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
[OAC rules 3745-77-07(C)(1)]

IV. Reporting Requirements (continued)

3. The permittee shall submit annual deviation (excursion) reports which identify all exceedances of the production limit of 12,500 tons (for emissions units F015 and F016 combined).

These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

4. The permittee shall notify the Northwest District Office in writing of any record showing the processing of materials other than "clean" raw materials specified in section B.2. The notification shall include a copy of such record and shall be sent to the Northwest District Office within 45 days after the exceedance occurs.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

V. Testing Requirements

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

1.a Emission Limitations:
5.62 tons fugitive PE/yr (for emissions units F015 and F016 combined)

Applicable Compliance Method:
The emission limitations were established by multiplying the annual iron throughput limit of 12,500 tons per year by the appropriate emission factor of 0.9 lb PE per ton or iron production (US EPA AP-42, Table 12.10-3, January 1995) and dividing by 2000 lbs/ton.

Therefore, provided compliance is shown with the iron throughput restriction, compliance with the ton per year PE limitation will be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.b Emission Limitations:
0.62 tons fugitive PE/yr (for emissions units F015 and F016 combined)

Applicable Compliance Method:
The emission limitations were established by multiplying the annual iron throughput limit of 12,500 tons per year by the appropriate emission factor of 0.1 lb Pb per ton or iron production (US EPA AP-42, Table 12.10-5, January 1995) and dividing by 2000 lbs/ton.

Therefore, provided compliance is shown with the iron throughput restriction, compliance with the ton per year Pb limitation will be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.c Emission Limitations:
Visible fugitive PE shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method:
If required, compliance shall be determined by visible emission evaluations performed in accordance with USEPA Reference Method 9 as set forth in "Appendix A on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraph (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03(B)(3).
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.d Emission Limitations:
20.0 tons per rolling 12-month period for any combination of HAPs for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined

Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements as specified in sections A.III.2, 3, and 4.
[OAC rule 3745-77-07(C)(1)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Electric Induction Furnace (Furnace A)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 5 ton Coreless induction Furnace B□□ (F016)

Activity Description: Melting of pig iron, scrap steel, scrap iron, foundry returns, and alloys through use of a coreless electric induction furnace

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Electric Induction Furnace (Furnace B)	OAC rule 3745-31-05(A)(3) (PTI 03-14073 issued October 28, 2003)	5.62 ton fugitive particulate emissions (PE) /yr (for emissions units F015 and F016 combined) 0.62 ton fugitive lead emissions (Pb) /yr (for emissions units F015 and F016 combined) Visible fugitive PE shall not exceed 20% opacity, as a three-minute average.
	OAC rule 3745-77-07(B)(1)	8.0 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 20.0 tons per rolling 12-month period for any combination of HAPs [for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined] (See A.I.2.a)
	OAC rule 3745-17-08(B)	none (See A.I.2.b)
	OAC rule 3745-17-07(B)	none (See A.I.2.c)

2. Additional Terms and Conditions

2.a The emissions of HAPs from emission units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined, shall not exceed 8.0 tons per year for an individual HAP and 20.0 tons per year for any combination of HAPs, based upon a rolling 12-month summation of the monthly emissions.

As long as compliance with the input restrictions in Section A.II.1 is maintained, compliance with the 8.0 ton/yr individual HAP limit shall be assumed (based on "CERP Organic HAP Emission Measurements for Iron Foundries and Their Use in Development of an AFS HAP Guidance Document", 2006), i.e. the study shows that individual HAP emissions distribution at iron foundries is such that: where the total combined HAPs are below 20 tons per year, the highest emission of any individual HAP will be below 8 tons per year

Hazardous Air Pollutant (HAP) means any air pollutant listed in or pursuant to Section 112 (b) of the Clean Air Act.

2.b The emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

2.c This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

2.d All PE is conservatively assumed to be PM10.

II. Operational Restrictions

1. The iron throughput for emissions units F012, F013, F015, and F016 combined shall not exceed 14,400 tons per rolling 12-month period.
[OAC rule 3745-77-07(A)(1)]

2. The iron throughput for emissions units F015 and F016 combined shall not exceed 12,500 tons per calendar year.
[OAC rule 3745-77-07(A)(1), and 3745-31-05(A)(3)]

3. The permittee shall only process "clean" raw materials in this emissions unit (i.e., free of oils, greases, solvents etc.).
PTI 03-14073

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, 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 fugitive 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.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall collect and record the following information each month for emissions units F012, F013, F015, and F016, combined:

a. the number of tons of foundry sand throughput;

b. the total HAP (organic) emission rate, in pounds, calculated as follows:

HAP emissions (lbs/month) = (tons of sand throughput) x EF
where EF = 0.04 lb total HAP per ton iron throughput *

* American Foundry Society Paper 06-031(10), Table 2 (2001)
[OAC rule 3745-77-07(C)(1)]

3. The permittee shall collect and record the following information each month for emissions units F015 and F016, combined:

a. the number of tons of foundry sand throughput;

b. the total HAP (Pb) emission rate, in pounds, calculated as follows:

HAP emissions (lbs/month) = (tons of sand throughput) x EF
where EF = 0.1 lb total HAP per ton iron throughput *

* US EPA AP-42, Table 12.10-5, January 1995
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

4. The permittee shall collect and record the following information regarding HAP emissions each month for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined:

a. the total HAP emission rate (summation of: A.III.2.b, for all emissions units as listed above; and A.III.3.b, for F015 and F016), in tons; and

b. the rolling 12-month emissions of total HAPs, in tons.
[OAC rule 3745-77-07(C)(1)]

5. The permittee shall maintain records documenting each day during which the processing of materials other than "clean" raw materials occurred.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

2. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month combined HAPs emission limitation of 20.0 tons (for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined).

These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
[OAC rule 3745-77-07(C)(1)]

IV. Reporting Requirements (continued)

3. The permittee shall submit annual deviation (excursion) reports which identify all exceedances of the production limit of 12,500 tons (for emissions units F015 and F016 combined).

These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

4. The permittee shall notify the Northwest District Office in writing of any record showing the processing of materials other than "clean" raw materials specified in section B.2. The notification shall include a copy of such record and shall be sent to the Northwest District Office within 45 days after the exceedance occurs.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

V. Testing Requirements

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

1.a Emission Limitations:
5.62 tons fugitive PE/yr (for emissions units F015 and F016 combined)

Applicable Compliance Method:
The emission limitations were established by multiplying the annual iron throughput limit of 12,500 tons per year by the appropriate emission factor of 0.9 lb PE per ton or iron production (US EPA AP-42, Table 12.10-3, January 1995) and dividing by 2000 lbs/ton.

Therefore, provided compliance is shown with the iron throughput restriction, compliance with the ton per year PE limitation will be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.b Emission Limitations:
0.62 tons fugitive PE/yr (for emissions units F015 and F016 combined)

Applicable Compliance Method:
The emission limitations were established by multiplying the annual iron throughput limit of 12,500 tons per year by the appropriate emission factor of 0.1 lb Pb per ton or iron production (US EPA AP-42, Table 12.10-5, January 1995) and dividing by 2000 lbs/ton.

Therefore, provided compliance is shown with the iron throughput restriction, compliance with the ton per year Pb limitation will be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.c Emission Limitations:
Visible fugitive PE shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method:
If required, compliance shall be determined by visible emission evaluations performed in accordance with USEPA Reference Method 9 as set forth in "Appendix A on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraph (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03(B)(3).
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.d Emission Limitations:
20.0 tons per rolling 12-month period for any combination of HAPs for emissions units F001, F002, F003, F008, F009, F010, F012, F013, F015, and F016, combined

Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements as specified in sections A.III.2, 3, and 4.
[OAC rule 3745-77-07(C)(1)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Electric Induction Furnace (Furnace B)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Shakeout Deck (P002)

Activity Description: Flasks/castings are placed on a vibrating deck to shake the mold sand and core sand loose from the casting, used sand is screened, cleaned, and reused to make new molds

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Shake-out Deck (with baghouse)	OAC rule 3745-17-11(B)(2)	8.24 lbs particulate emissions (PE)/hr
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	40 CFR 64	See Sections A.III and A.IV.

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicators for the baghouse controlling this emissions unit are the static pressure drop across the baghouse, which was established in accordance with the manufacturer's recommendations, and visible emissions checks. When the static pressure drop or visible emissions show operation outside the indicator range(s), the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section A.IV below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan, or any approved revision of the Plan. The baghouse shall not be configured to have bypass capability.
[OAC 3745-77-07(A)(3)(a) and (b), 40 CFR 64.3(a), 64.6(c), 64.7(d), and 64.8]

III. Monitoring and/or Record Keeping Requirements (continued)

2. Baghouse operating parameters shall be re-verified as a result of any changes to the operating conditions of the baghouse or emissions unit. In addition to periodic monitoring of the baghouse operating parameters, the permittee also has an inspection and maintenance program for the baghouse, including but not limited to:

a. checking the bags / filters for deterioration or degradation;

b. checking the cleaning system for proper operation; and

c. checking the hoppers and conveyance systems for proper operation.

Based on the results of the monitoring and inspection program, repairs to the baghouse shall be made as needed. If the current CAM indicators and/or the baghouse inspection program is considered inadequate, the permittee shall develop a Quality Improvement Plan.
[OAC 3745-77-07(A)(3)(a) and (b), 40 CFR 64.3(a), 64.6(c), 64.7(d), and 64.8]

3. At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
[OAC 3745-77-07(C)(1) and 40 CFR 64.7(b)]

4. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, the permittee shall promptly notify the appropriate Ohio EPA District Office or local air agency, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
[OAC 3745-77-07(C)(1) and 40 CFR 64.7(e)]

5. The permittee shall properly operate and maintain equipment to continuously 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 following information each day:

a. the static pressure drop across the baghouse, in inches of water; and

b. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
[OAC 3745-77-07(C)(1), 40 CFR 64.3(a)(2), and 40 CFR 64.7(b)]

6. Whenever the monitored values for the pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

III. Monitoring and/or Record Keeping Requirements (continued)

The pressure drop across the baghouse shall be maintained within the range of 6 to 10 inches of water while the emissions unit is in operation.

This range is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the range(s) based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the ranges will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor modification.
[OAC 3745-77-07(C)(1), 40 CFR 64.3(a)(2), and 40 CFR 64.7(b)]

7. 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 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 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.
[OAC 3745-77-07(C)(1) and 40 CFR 64.3]

8. The permittee shall maintain a supply of replacement parts necessary to ensure ongoing proper operation of the baghouse system, including, but not limited to:

a. filter bags;
b. timing boards and solenoid coils (for blow down function);
c. diaphragms and diaphragm seal kits;
d. spare set of belts; and
e. spare bearings for blower motor.
[OAC rule 3745-77-07(C)(1) and 40 CFR 64.7(d)]

IV. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time when the pressure drop across the baghouse was outside the acceptable range;

b. an identification of each incident of deviation described in (a) above where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.
[OAC 3745-77-07(C)(1), 40 CFR 64.7(d), 40 CFR 64.3(a), and 40 CFR 64.9(b)]

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 and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
[OAC 3745-77-07(C)(1) and 40 CFR 64.9]

V. Testing Requirements

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

1.a Emission Limitation:
8.24 lb PE/hr

Applicable Compliance Method:
The permittee shall demonstrate compliance with the emission limitation above based upon the results of emissions testing required in section A.V.2.
[OAC rule 3745-77-07(C)(1)]

1.b Emission Limitation:
Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance with the visible PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).
[OAC rule 3745-77-07(C)(1)]

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted approximately 2.5 years after permit issuance.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: Methods 1 through 5 of 40 CFR, Part 60, Appendix A

d. The emission testing shall be conducted while this emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Director (the Ohio EPA, Northwest District Office).
[OAC rule 3745-77-07(C)(1)]

3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Director (the Ohio EPA, Northwest District Office). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Director (the Ohio EPA, Northwest District Office's) refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Director (the Ohio EPA, Northwest District Office) within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Director (the Ohio EPA, Northwest District Office).
[OAC rule 3745-77-07(C)(1)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Shake-out Deck (with baghouse)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tableblast (P009)

Activity Description: Rough clean of castings using steel shot

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Abrasive Blasting Unit (Tableblast) - with baghouse	OAC rule 3745-17-11(B)(2)	9.96 lbs particulate emissions (PE)/hr
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse(s) during operation of this emissions unit. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop, in inches of water, across the baghouse on a weekly basis.

Whenever the monitored value for the pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

III. Monitoring and/or Record Keeping Requirements (continued)

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range(s) specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop readings immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the baghouse is 3 to 6 inches of water.

This range(s) is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the range(s) based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the range(s) will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a 'minor' permit modification.
[OAC rule 3745-77-07(C)(1)]

IV. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time when the pressure drop across the baghouse(s) was outside the acceptable range(s)

b. an identification of each incident of deviation described in (a) above where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range(s), was determined to be necessary and was not taken; and

d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.
[OAC rule 3745-77-07(C)(1)]

V. Testing Requirements

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

1.a Emission Limitation:
9.96 lb PE/hr

Applicable Compliance Method:
Compliance may be determined by multiplying the maximum process wieght rate (4.1 tons cast iron/hr) by an emission factor of 17 lb PE /ton iron (AP-42 Table 12.10-7, January 1995) and a control factor of (1 - 0.99), i.e. 99 percent control for use of a baghouse.

If required, the permittee shall demonstrate compliance with the hourly emission limitation in accordance with OAC rule 3745-17-03(B)(10).
[OAC rule 3745-77-07(C)(1)]

V. Testing Requirements (continued)

1.b Emission Limitation:
Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance with the visible PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).
[OAC rule 3745-77-07(C)(1)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Abrasive Blasting Unit (Tableblast) - with baghouse	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Sand Storage and Transfer (P011)

Activity Description: Sand is stored in concrete silos and conveyed pnuematically throughout the facility, sand is received via trucks

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Sand Storage and Transfer (with baghouse)	OAC rule 3745-17-11(B)(2)	10.4 lbs particulate emissions (PE)/hr
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	40 CFR 64	See Sections A.III and A.IV.

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicators for the baghouse controlling this emissions unit are the static pressure drop across the baghouse, which was established in accordance with the manufacturer's recommendations, and visible emissions checks. When the static pressure drop or visible emissions show operation outside the indicator range(s), the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section A.IV below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan, or any approved revision of the Plan. The baghouse shall not be configured to have bypass capability.
[OAC 3745-77-07(A)(3)(a) and (b), 40 CFR 64.3(a), 64.6(c), 64.7(d), and 64.8]

III. Monitoring and/or Record Keeping Requirements (continued)

2. Baghouse operating parameters shall be re-verified as a result of any changes to the operating conditions of the baghouse or emissions unit. In addition to periodic monitoring of the baghouse operating parameters, the permittee also has an inspection and maintenance program for the baghouse, including but not limited to:

a. checking the bags / filters for deterioration or degradation;

b. checking the cleaning system for proper operation; and

c. checking the hoppers and conveyance systems for proper operation.

Based on the results of the monitoring and inspection program, repairs to the baghouse shall be made as needed. If the current CAM indicators and/or the baghouse inspection program is considered inadequate, the permittee shall develop a Quality Improvement Plan.
[OAC 3745-77-07(A)(3)(a) and (b), 40 CFR 64.3(a), 64.6(c), 64.7(d), and 64.8]

3. At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
[OAC 3745-77-07(C)(1) and 40 CFR 64.7(b)]

4. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, the permittee shall promptly notify the appropriate Ohio EPA District Office or local air agency, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
[OAC 3745-77-07(C)(1) and 40 CFR 64.7(e)]

5. The permittee shall properly operate and maintain equipment to continuously 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 following information each day:

a. the static pressure drop across the baghouse, in inches of water; and

b. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
[OAC 3745-77-07(C)(1), 40 CFR 64.3(a)(2), and 40 CFR 64.7(b)]

6. Whenever the monitored values for the pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

III. Monitoring and/or Record Keeping Requirements (continued)

The pressure drop across the baghouse shall be maintained within the range of 6 to 10 inches of water while the emissions unit is in operation.

This range is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the range(s) based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the ranges will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor modification.
[OAC 3745-77-07(C)(1), 40 CFR 64.3(a)(2), and 40 CFR 64.7(b)]

7. 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 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 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.
[OAC 3745-77-07(C)(1) and 40 CFR 64.3]

8. The permittee shall maintain a supply of replacement parts necessary to ensure ongoing proper operation of the baghouse system, including, but not limited to:

a. filter bags;
b. timing boards and solenoid coils (for blow down function);
c. diaphragms and diaphragm seal kits;
d. spare set of belts; and
e. spare bearings for blower motor.
[OAC rule 3745-77-07(C)(1) and 40 CFR 64.7(d)]

IV. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time when the pressure drop across the baghouse was outside the acceptable range;

b. an identification of each incident of deviation described in (a) above where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.
[OAC 3745-77-07(C)(1), 40 CFR 64.7(d), 40 CFR 64.3(a), and 40 CFR 64.9(b)]

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 and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
[OAC 3745-77-07(C)(1) and 40 CFR 64.9]

V. Testing Requirements

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

1.a Emission Limitation:
10.4 lb PE/hr

Applicable Compliance Method:
The permittee shall demonstrate compliance with the emission limitation above based upon the results of emissions testing required in section A.V.2.
[OAC rule 3745-77-07(C)(1)]

1.b Emission Limitation:
Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance with the visible PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).
[OAC rule 3745-77-07(C)(1)]

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted approximately 2.5 years after permit issuance.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: Methods 1 through 5 of 40 CFR, Part 60, Appendix A

d. The emission testing shall be conducted while this emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Director (the Ohio EPA, Northwest District Office).
[OAC rule 3745-77-07(C)(1)]

3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Director (the Ohio EPA, Northwest District Office). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Director (the Ohio EPA, Northwest District Office's) refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Director (the Ohio EPA, Northwest District Office) within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Director (the Ohio EPA, Northwest District Office).
[OAC rule 3745-77-07(C)(1)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Sand Storage and Transfer (with baghouse)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Ball Mill Crusher (P012)

Activity Description: Prepares sand for foundry use by crushing agglomerated sand into useable (grain) sand

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Ball Mill Crusher (Sand Reclaim) - with baghouse	OAC rule 3745-17-11(B)(2)	14.2 lbs particulate emissions (PE)/hr
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	40 CFR 64	See Sections A.III and A.IV.

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicators for the baghouse controlling this emissions unit are the static pressure drop across the baghouse, which was established in accordance with the manufacturer's recommendations, and visible emissions checks. When the static pressure drop or visible emissions show operation outside the indicator range(s), the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section A.IV below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan, or any approved revision of the Plan. The baghouse shall not be configured to have bypass capability.
[OAC 3745-77-07(A)(3)(a) and (b), 40 CFR 64.3(a), 64.6(c), 64.7(d), and 64.8]

III. Monitoring and/or Record Keeping Requirements (continued)

2. Baghouse operating parameters shall be re-verified as a result of any changes to the operating conditions of the baghouse or emissions unit. In addition to periodic monitoring of the baghouse operating parameters, the permittee also has an inspection and maintenance program for the baghouse, including but not limited to:

a. checking the bags / filters for deterioration or degradation;

b. checking the cleaning system for proper operation; and

c. checking the hoppers and conveyance systems for proper operation.

Based on the results of the monitoring and inspection program, repairs to the baghouse shall be made as needed. If the current CAM indicators and/or the baghouse inspection program is considered inadequate, the permittee shall develop a Quality Improvement Plan.
[OAC 3745-77-07(A)(3)(a) and (b), 40 CFR 64.3(a), 64.6(c), 64.7(d), and 64.8]

3. At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
[OAC 3745-77-07(C)(1) and 40 CFR 64.7(b)]

4. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, the permittee shall promptly notify the appropriate Ohio EPA District Office or local air agency, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
[OAC 3745-77-07(C)(1) and 40 CFR 64.7(e)]

5. The permittee shall properly operate and maintain equipment to continuously 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 following information each day:

a. the static pressure drop across the baghouse, in inches of water; and

b. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
[OAC 3745-77-07(C)(1), 40 CFR 64.3(a)(2), and 40 CFR 64.7(b)]

6. Whenever the monitored values for the pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

III. Monitoring and/or Record Keeping Requirements (continued)

The pressure drop across the baghouse shall be maintained within the range of 6 to 10 inches of water while the emissions unit is in operation.

This range is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the range(s) based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the ranges will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor modification.
[OAC 3745-77-07(C)(1), 40 CFR 64.3(a)(2), and 40 CFR 64.7(b)]

7. 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 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 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.
[OAC 3745-77-07(C)(1) and 40 CFR 64.3]

8. The permittee shall maintain a supply of replacement parts necessary to ensure ongoing proper operation of the baghouse system, including, but not limited to:

a. filter bags;
b. timing boards and solenoid coils (for blow down function);
c. diaphragms and diaphragm seal kits;
d. spare set of belts; and
e. spare bearings for blower motor.
[OAC rule 3745-77-07(C)(1) and 40 CFR 64.7(d)]

IV. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time when the pressure drop across the baghouse was outside the acceptable range;

b. an identification of each incident of deviation described in (a) above where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.
[OAC 3745-77-07(C)(1), 40 CFR 64.7(d), 40 CFR 64.3(a), and 40 CFR 64.9(b)]

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 and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
[OAC 3745-77-07(C)(1) and 40 CFR 64.9]

V. Testing Requirements

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

1.a Emission Limitation:
14.2 lb PE/hr

Applicable Compliance Method:
The permittee shall demonstrate compliance with the emission limitation above based upon the results of emissions testing required in section A.V.2.
[OAC rule 3745-77-07(C)(1)]

1.b Emission Limitation:
Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance with the visible PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).
[OAC rule 3745-77-07(C)(1)]

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted approximately 2.5 years after permit issuance.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: Methods 1 through 5 of 40 CFR, Part 60, Appendix A

d. The emission testing shall be conducted while this emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Director (the Ohio EPA, Northwest District Office).

V. Testing Requirements (continued)

3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Director (the Ohio EPA, Northwest District Office). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Director (the Ohio EPA, Northwest District Office's) refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Director (the Ohio EPA, Northwest District Office) within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Director (the Ohio EPA, Northwest District Office).
[OAC rule 3745-77-07(C)(1)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Ball Mill Crusher (Sand Reclaim) - with baghouse	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Electric-Heated Thermal Sand Reclamation System (P016)

Activity Description: Reclamation of spent foundry sand through use of an indirect electric radiant heat thermal sand reclamation system with a gas heated center fired temperature controlled exhaust system; hot fluidizing air oxidizes, destroying the binder and organic matter on the sand grains

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Sand (thermal) Reclamation System (with baghouse)	OAC rule 3745-31-05(A)(3) (PTI 03-9119 as modified on July 3, 2003)	0.34 lb particulate emissions (PE) /hr, 1.49 ton/yr 0.01 grains PE /dry standard cubic foot (dscf) See A.I.2.a 0.33 lb volatile organic compounds (VOC) /hr, 1.45 ton/yr Visible PE shall not exceed 5% opacity, as a six-minute average. See A.I.2.b
	OAC rule 3745-17-11(B)(2)	See A.I.2.b

2. Additional Terms and Conditions

2.a The "Best Available Technology" (BAT) control requirement for this emissions unit has been determined to be the use of a baghouse achieving an outlet concentration limit of not more than 0.01 grain PM10 /dscf.

2.b The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-17-07(A).

2.c All particulate emissions are assumed to be particulate matter less than 10 um (PM10).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse(s) during operation of this emissions unit. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop, in inches of water, across the baghouse on a weekly basis.

Whenever the monitored value for the pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range(s) specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop readings immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the baghouse is 6 to 10 inches of water.

This range(s) is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the range(s) based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the range(s) will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a 'minor' permit modification.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

IV. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time when the pressure drop across the baghouse(s) was outside the acceptable range(s)

b. an identification of each incident of deviation described in (a) above where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range(s), was determined to be necessary and was not taken; and

d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitation:
0.01 grains PE /dry standard cubic foot (dscf)

Applicable Compliance Method:
Compliance with this emission limitation was demonstrated with the results of emissions testing conducted on December 23, 2002.

If required, the permittee shall conduct any future compliance demonstration with the emission limitation in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.b Emission Limitation:
0.34 lb PE /hr
1.49 ton/yr

Applicable Compliance Method:
Compliance with the hourly emission limitation was demonstrated with the results of emissions testing conducted on December 23, 2002.

If required, the permittee shall conduct any future compliance demonstration with the hourly emission limitation in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

The annual allowable PE limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is shown, compliance with the annual limitation shall be assumed.

1.c Emission Limitation:
0.33 lb VOC /hr
1.45 ton VOC/yr

Applicable Compliance Method:
Compliance with the hourly emission limitation was demonstrated with the results of emissions testing conducted on December 23, 2002.

If required, the permittee shall conduct any future compliance demonstration with the hourly emission limitation in accordance with Methods 18, 25, and/or 25A of 40 CFR Part 60, Appendix A.

The annual allowable VOC limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is shown, compliance with the annual limitation shall be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.d Emission Limitation:
Visible PE shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method:
If required, compliance with the visible PE limitation shall be determined in accordance with 40 CFR 60, Appendix A, Method 9.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Sand (thermal) Reclamation System (with baghouse)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Sand Silo for New Bay Mixer (P018)

Activity Description: Silo receives sand from west silo (reclaimed sand) and feeds, via gravity, sand to new bay mixer (mixing of sand and binders)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Sand Silo (for New Bay Mixer) - with baghouse	OAC rule 3745-31-05(A)(3) (PTI 03-13316 issued February 2, 2000)	0.89 lb particulate emissions (PE) /hr, 3.90 ton/yr 0.02 grains PE /dry standard cubic foot (dscf) See A.I.2.a and A.I.2.b
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)(2)	See A.I.2.c
	40 CFR 64	See Sections A.III and A.IV.

2. Additional Terms and Conditions

2.a The "Best Available Technology" (BAT) control requirement for this emissions unit has been determined to be the use of a baghouse achieving an outlet concentration limit of not more than 0.02 grain PM10 /dscf.

2.b The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-17-07(A).

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

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicators for the baghouse controlling this emissions unit are the static pressure drop across the baghouse, which was established in accordance with the manufacturer's recommendations, and visible emissions checks. When the static pressure drop or visible emissions show operation outside the indicator range(s), the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section A.IV below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan, or any approved revision of the Plan. The baghouse shall not be configured to have bypass capability.
[OAC 3745-77-07(A)(3)(a) and (b), 40 CFR 64.3(a), 64.6(c), 64.7(d), and 64.8]

2. Baghouse operating parameters shall be re-verified as a result of any changes to the operating conditions of the baghouse or emissions unit. In addition to periodic monitoring of the baghouse operating parameters, the permittee also has an inspection and maintenance program for the baghouse, including but not limited to:

a. checking the bags / filters for deterioration or degradation;

b. checking the cleaning system for proper operation; and

c. checking the hoppers and conveyance systems for proper operation.

Based on the results of the monitoring and inspection program, repairs to the baghouse shall be made as needed. If the current CAM indicators and/or the baghouse inspection program is considered inadequate, the permittee shall develop a Quality Improvement Plan.
[OAC 3745-77-07(A)(3)(a) and (b), 40 CFR 64.3(a), 64.6(c), 64.7(d), and 64.8]

3. At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
[OAC 3745-77-07(C)(1) and 40 CFR 64.7(b)]

4. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, the permittee shall promptly notify the appropriate Ohio EPA District Office or local air agency, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
[OAC 3745-77-07(C)(1) and 40 CFR 64.7(e)]

5. The permittee shall properly operate and maintain equipment to continuously 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 following information each day:

a. the static pressure drop across the baghouse, in inches of water; and

b. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
[OAC 3745-77-07(C)(1), 40 CFR 64.3(a)(2), and 40 CFR 64.7(b)]

III. Monitoring and/or Record Keeping Requirements (continued)

6. Whenever the monitored values for the pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The pressure drop across the baghouse shall be maintained within the range of 6 to 10 inches of water while the emissions unit is in operation.

This range is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the range(s) based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the ranges will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor modification.
[OAC 3745-77-07(C)(1), 40 CFR 64.3(a)(2), and 40 CFR 64.7(b)]

7. 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 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 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.
[OAC 3745-77-07(C)(1) and 40 CFR 64.3]

8. The permittee shall maintain a supply of replacement parts necessary to ensure ongoing proper operation of the baghouse system, including, but not limited to:

a. filter bags;
b. timing boards and solenoid coils (for blow down function);
c. diaphragms and diaphragm seal kits;
d. spare set of belts; and
e. spare bearings for blower motor.
[OAC rule 3745-77-07(C)(1) and 40 CFR 64.7(d)]

IV. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time when the pressure drop across the baghouse was outside the acceptable range;

b. an identification of each incident of deviation described in (a) above where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.
[OAC 3745-77-07(C)(1), 40 CFR 64.7(d), 40 CFR 64.3(a), and 40 CFR 64.9(b)]

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 and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
[OAC 3745-77-07(C)(1) and 40 CFR 64.9]

V. Testing Requirements

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

1.a Emission Limitation:
0.89 lb PE/hr, 3.90 ton PE /yr
0.02 grains PE /dry standard cubic foot (dscf)

Applicable Compliance Method:
The 0.02 gr PE /dscf limitation is the established maximum outlet concentration for the baghouse. Compliance with the hourly limit may be determined by multiplying 0.02 gr PE/dscf by the maximum volumetric air flow rate (4000 acfm - the portion of total air flow associated with this emissions unit), and the appropriate conversion factors of lb/7000 grains, 1 dscf/1 acfm, 60 minutes/hr.

If required, the permittee shall demonstrate compliance with the hourly emission limitation in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

The annual allowable PE limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is shown, compliance with the annual limitation shall be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.b Emission Limitation:
Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance with the visible PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Sand Silo (for New Bay Mixer) - with baghouse	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Casting Blowout Room (P019)

Activity Description: Excess sand is removed from castings via compressed air and disposed

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Casting 'Blow-out' Room (with baghouse)	OAC rule 3745-31-05(A)(3) (PTI 03-13473 issued September 6, 2000)	0.13 lb particulate emissions (PE) /hr, 0.57 ton/yr 0.09 lb particulate matter less than 10 microns in size (PM10) /hr, 0.40 ton/yr See A.I.2.a and A.I.2.b.
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)(2)	See A.I.2.c

2. Additional Terms and Conditions

2.a The "Best Available Technology" (BAT) control requirement for this emissions unit has been determined to be the use of a baghouse for control of particulate matter.

2.b The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-17-07(A).

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

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The pressure drop monitoring /recordkeeping requirements for the baghouse for this emissions unit, as specified under Compliance Assurance Monitoring (CAM) requirements for emissions unit P002, shall be sufficient to satisfy pressure drop monitoring /recordkeeping requirements for this emissions unit. [OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

IV. Reporting Requirements

1. The pressure drop reporting requirements for the baghouse for this emissions unit, as specified under Compliance Assurance Monitoring (CAM) requirements for emissions unit P002, shall be sufficient to satisfy pressure drop reporting requirements for this emissions unit.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

V. Testing Requirements

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

1.a Emission Limitation:
0.13 lb PE/hr, 0.57 ton/yr

Applicable Compliance Method:
Compliance may be determined by multiplying the maximum process weight rate (4.1 tons cast iron/hr) by an emission factor of 3.2 lb PE /ton iron (AP-42 Table 12.10-7, January 1995) and a control factor of (1 - 0.99), i.e. 99 percent control for use of a baghouse.

If required, the permittee shall demonstrate compliance with the hourly emission limitation in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

The annual allowable PE limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is shown, compliance with the annual limitation shall be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.b Emission Limitation:
0.09 lb PM10/hr, 0.40 ton/yr

Applicable Compliance Method:
Compliance may be determined by multiplying the maximum process weight rate (4.1 tons cast iron/hr) by an emission factor of 3.2 lb PE /ton iron with a particle size distribution factor of 0.7 (AP-42 Tables 12.10-7 and 12.10-8, January 1995), and a control factor of (1 - 0.99), i.e. 99 percent control for use of a baghouse.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

The annual allowable PE limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is shown, compliance with the annual limitation shall be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.c Emission Limitation:
Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance with the visible PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Casting 'Blow-out' Room (with baghouse)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Natural Gas Fired Scrap Preheater (P020)

Activity Description: Raw scrap (pig iron, iron, scrap steel, foundry returns) is conveyed into preheater to remove water and residue (combustion of organics) prior to melting

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Iron Scrap Pre-heater (13 mmBtu/hr - natural gas)	OAC rule 3745-31-05(A)(3) (PTI 03-13473 issued September 6, 2000)	2.56 lb particulate emissions (PE) /hr, 11.2 ton/yr 1.50 lb particulate matter less than 10 microns in size (PM10) /hr, 6.57 ton/yr 1.27 lb nitrogen oxides (NOx) /hr, 5.56 ton/yr 1.07 carbon monoxide (CO) /hr, 4.69 ton/yr Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided in OAC 3745-17-07(A)(3).
	OAC rule 3745-17-11(B)(2)	none (See A.I.2.a.)
	OAC rule 3745-17-07(A)	none (See A.I.2.b.)

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs / hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(ii), Figure II of OAC rule 3745-17-11 does not apply. Also, Table 1 does not apply because the facility is located in Auglaize County.

2.b This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.
[OAC rule 3745-77-07(A)(1), and 3745-31-05(A)(3)]

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

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 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 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.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

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 and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitation:
2.56 lb PE /hr, 11.21 ton/yr

Applicable Compliance Method:
The permittee may demonstrate compliance with the hourly allowable PE limitation as follows:

i. for natural gas combustion, multiply the maximum natural gas combustion rate (0.013 mm cu. ft/hr) by the AP-42, Section 1.4 (revised 7/98) emission factor of 1.9 lbs PE/mm cu. ft of natural gas;

ii. for the emissions from the scrap, multiply the maximum hourly process weight (4.1 tons/hr) by the AP-42, Section 12.10 (revised 1/95) emission factor of 0.6 lb PE/ton of gray iron; and

iii. add 1.a.i + 1.a.ii.

If required, the permittee shall demonstrate compliance with the hourly emission limitation in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

The annual allowable PE limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is shown, compliance with the annual limitation shall be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.b Emission Limitation:
1.50 lb PM10 /hr, 6.57 ton/yr

Applicable Compliance Method:
The permittee may demonstrate compliance with the hourly allowable PM10 limitation as follows:

i. for natural gas combustion, multiply the maximum natural gas combustion rate (0.013 mm cu. ft/hr) by the AP-42, Section 1.4 (revised 7/98) emission factor of 1.9 lbs PE/mm cu. ft of natural gas;

ii. for the emissions from the scrap, multiply the maximum hourly process weight (4.1 tons/hr) by US EPA's FIRE 6.25 database (SCC 3-04-003-15) emission factor of 0.36 pounds PM10 /ton of gray iron; and

iii. add 1.a.i + 1.a.ii.

If required, the permittee shall demonstrate compliance with the 0.03 gr PM10/dscf by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

The annual allowable PM10 limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is shown, compliance with the annual limitation shall be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.c Emission Limitation:
1.27 NOx /hr, 5.56 ton/yr

Applicable Compliance Method:
Compliance with the hourly emission limitation may be determined by multiplying the maximum hourly natural gas combustion rate (mm cu. ft./hr) by the emission factor from AP-42 Table 1.4-1 (revised 07/98) of 100 lb NOx /mm cu. ft. of natural gas. Compliance with the annual emission limitation may be demonstrated by multiplying the lb NOx /hr by 8760 hr/yr, and then dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR 60, Appendix A, Methods 1- 4, and 7.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

V. Testing Requirements (continued)

1.d Emission Limitation:
1.07 CO /hr, 4.69 ton/yr

Applicable Compliance Method:
Compliance with the hourly emission limitation may be determined by multiplying the maximum hourly natural gas combustion rate (mm cu. ft./hr) by the emission factor from AP-42 Table 1.4-1 (revised 07/98) of 84 lb CO /mm cu. ft. of natural gas. Compliance with the annual emission limitation may be demonstrated by multiplying the lb CO /hr by 8760 hr/yr, and then dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR 60, Appendix A, Methods 1- 4, and 10.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.e Emission Limitation:
Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided in OAC 3745-17-07(A)(3).

Applicable Compliance Method:
If required, compliance with the visible PE limitation shall be determined in accordance with 40 CFR 60, Appendix A, Method 9.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Iron Scrap Pre-heater (13 mmBtu/hr - natural gas)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tumbleblast Machine (Clean Room) (P023)

Activity Description: Rough clean of castings using steel shot (replacement of P022)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Abrasive Blasting Unit (Tumbleblast - Clean Room) - with baghouse	OAC rule 3745-31-05(A)(3) (PTI 03-17072 issued March 21, 2006)	3.94 tons particulate matter less than 10 microns in size (PM10)/year (See A.I.2.a)
		0.03 grains PM10/dry standard cubic foot (dscf)
		See A.I.2.a
		Visible particulate emissions shall not exceed 5% opacity, as a six-minute average
	OAC rule 3745-17-07(A)	See A.I.2.c
	OAC rule 3745-17-11(B)	See A.I.2.c

2. Additional Terms and Conditions

2.a The "Best Available Technology" (BAT) control requirement for this emissions unit has been determined to be the use of a baghouse achieving an outlet concentration limit of not more than 0.03 grain PM10 /dscf.

2.b All emissions of particulate matter are PM10.

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

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse(s) during operation of this emissions unit. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop, in inches of water, across the baghouse on a weekly basis.

Whenever the monitored value for the pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range(s) specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop readings immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the baghouse is 6 to 10 inches of water.

This range(s) is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the range(s) based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the range(s) will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a 'minor' permit modification.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

IV. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time when the pressure drop across the baghouse(s) was outside the acceptable range(s)

b. an identification of each incident of deviation described in (a) above where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range(s), was determined to be necessary and was not taken; and

d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitation:
0.03 gr PM10 /dscf, 3.94 ton PM10 /yr

Applicable Compliance Method:
The 0.03 gr PM10/dscf limitation is the established maximum outlet concentration for the baghouse. Compliance with the ton/yr limitation may be determined by multiplying the maximum baghouse outlet concentration of 0.03 gr/dscf by the baghouse's maximum volumetric air flow rate (3,500 acfm - the portion of total air flow associated with this emissions unit). This value is then converted to ton/yr by multiplying by lb/7000 grains and 60 minutes/hour, then multiplied by 8760 hr/yr and ton/2000 lb.

If required, the permittee shall demonstrate compliance with the 0.03 gr PM10/dscf by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.b Emission Limitation:
Visible PE shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method:
If required, compliance with the visible PE limitation shall be determined in accordance with 40 CFR 60, Appendix A, Method 9.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Abrasive Blasting Unit (Tumbleblast - Clean Room) - with baghouse	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Core/Mold Coating Operations (R001)

Activity Description: Coating is applied to cores and molds via over-pour, swabbing (brush), and portable spray guns, after application, the part is ignited and coating is burned-off

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Core / Mold Coating Operations (with flame flash-off)	OAC rule 3745-31-05(A)(3) (PTI 03-13316 issued February 2, 2000)	7.48 lb fugitive organic compounds (OC) /hr, 32.8 ton /yr (from coating operations) 2300 lb fugitive OC/month, 13.8 ton /yr (from clean-up operations) 3.46 lbs of fugitive particulate emissions (PE) /hr, 15.2 ton/yr See A.I.2.a.
	OAC rule 3745-21-07(G)	See A.II.2.
	OAC rule 3745-17-08(B)	none (See A.I.2.b)
	OAC rule 3745-17-07(B)	none (See A.I.2.c)

2. Additional Terms and Conditions

2.a The "Best Available Technology" (BAT) control requirement for this emissions unit has been determined to be the use of flammable solvent-based core and mold coatings with light-off operations to reduce OC emissions.

2.b The emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

2.c This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

2.d The 7.48 lb OC /hr emission limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping or reporting requirements to ensure compliance with this emission limitation.

II. Operational Restrictions

1. The use of any photochemically reactive material, as defined in OAC rule 3745-21-01, in this emissions unit is prohibited.
[OAC rule 3745-77-07(A)(1), and 3745-31-05(A)(3)]

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each month for this emissions unit:

a. the name and identification number of each coating employed;

b. documentation on whether or not each coating employed is a photochemically reactive material;

c. identification of whether or not each coating employed has a flammable solvent base;

d. the volume, in gallons, of each coating employed;

e. the organic compound (OC) content of each coating, in lbs/gallon (before thinning);

f. the OC emission rate for each coating, in lbs/month ('d' x 'e'); and

g. the total OC emission rate for all coatings, in lbs/month (sum of 'f').
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

2. In conjunction with the recordkeeping required in A.III.1 above, the permittee shall also collect and record the following information each month for this emissions unit:

a. the company identification of the thinning /cleanup material employed;

b. documentation on whether or not the thinning /cleanup material employed is a photochemically reactive material.

c. the number of gallons of the thinning /cleanup material employed;

d. the OC content, in pounds per gallon, for the thinning /cleanup material employed;

e. the OC emission rate for the cleanup material employed*, in lbs/month [(c x 0.3) x d];

f. the OC emission rate for the thinning material employed, in lbs/month [(c x 0.7) x d];

g. the annual, year to date OC emissions from all coatings employed, as applied [sum of (A.III.1.g + A.III.2.f) for each calendar month to date from January to December].

* based on a 70/30 thinning /clean-up solvent percent usage 'split' factor
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports for this emissions unit which identify all exceedances of the emission limitation of 2300 lbs OC /month for clean-up operations.

The permittee shall submit these deviation (excursion) reports in accordance with paragraph A.I.c of the General Terms and Conditions of this permit.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

2. The permittee shall submit annual deviation (excursion) reports for this emissions unit which identify all exceedances of the emission limitation of 7.48 ton OC /year for coating operations.

These reports shall be submitted by January 31 of each year.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

3. The permittee shall notify the Director (the Ohio EPA, Northwest District Office) in writing of any record showing the use of non-complying materials (i.e., photochemically reactive coatings and/or cleanup materials) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Northwest District Office) within 45 days of the date of the daily record indicating non-compliance.

V. Testing Requirements

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

1.a Emission Limitation:
7.48 lb OC /hr (from coatings operations)

Applicable Compliance Method:
The hourly OC emission limitation was established based on multiplying the maximum OC content of 4.61 lbs per gallon by the maximum usage rate of 5.4 gallon per hour, and (1 - 0.7) emission reduction for flash-off.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.b Emission Limitation:
32.8 ton OC /yr (from coatings operations)

Applicable Compliance Method:
Compliance shall be based on the record keeping requirements as specified in A.III.2.g.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.c Emission Limitation:
2300 lb OC/month, 13.8 ton /yr (from clean-up operations)

Applicable Compliance Method:
Compliance shall be based on the record keeping requirements as specified in A.III.2.e.

The annual allowable OC limitation was developed by multiplying the monthly limitation by 12, and then dividing by 2000. Therefore, as long as compliance with the monthly limitation is shown, compliance with the annual limitation shall be assumed.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

1.d Emission Limitation:
3.46 lbs PE /hr, 15.15 ton/yr

Applicable Compliance Method:
This operation employs a 'pour-over' wand coating application method. Therefore, particulate emissions from 'overspray' are considered to be neglible, and assumed to be in compliance with the limitations above.
[OAC rules 3745-77-07(C)(1), and 3745-31-05(A)(3)]

2. Formulation data or US EPA Method 24 shall be used to determine the OC content of the coatings.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Core / Mold Coating Operations (with flame flash-off)	see Section B.III	see Section B.III

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

Pollutant: isopropyl alcohol
TLV (ug/m3): 983,000
Maximum Hourly Emission Rate (lbs/hr): 7.48
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2162
MAGLC (ug/m3): 23,400

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

a. changes in the composition of the materials used (mold release agent), 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 compositions 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.).

III. Monitoring and/or Record Keeping Requirements (continued)

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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

4. The permittee shall collect, record, and retain the following information when it conducts evaluation to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.)

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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