State of Ohio Environmental Protection Agency

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

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

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

02/28/01

CERTIFIED MAIL

RE: Draft Title V Chapter 3745-77 permit

02-85-01-0034
Technocast, Inc.
Dave Beard
1100 North Main Street
Orrville, OH 44667

Dear Dave Beard:

You are hereby notified that the Ohio Environmental Protection Agency has prepared the enclosed draft of the Title V permit for the facility referenced above. The purpose of this draft is to solicit public comments. A public notice concerning the draft will appear in the Ohio EPA Weekly Review and the major newspaper in the county where the facility is located. Comments and/or a request for a public hearing from the public and any affected parties will be accepted by Northeast District Office within 30 days of the date of publication in the newspaper. You will be notified in writing if a public hearing is scheduled.

A decision on processing the Title V permit will be made after consideration of written public comments and oral testimony (if a public hearing is conducted). After the comment period, you will be provided with a Preliminary Proposed Title V permit and an opportunity to comment prior to the Proposed Title V permit submittal to USEPA.

If you have any questions or comments concerning this draft Title V permit, please contact Northeast District Office.

Very truly yours,

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

cc: USEPA
Jim Orlemann, DAPC Engineering
Michael Ahern, DAPC PMU
Northeast District Office

OhioEPA

Ohio EPA
State of Ohio Environmental Protection Agency

DRAFT TITLE V PERMIT

Issue Date: 02/28/01
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance

This document constitutes issuance to:

Technocast, Inc.
1100 North Main Street
Orrville, OH 44667

of a Title V permit for Facility ID: 02-85-01-0034

Emissions Unit ID (Company ID)/
Emissions Unit Activity Description:
F003 (BMM Shakeout)
Sand and metal separation via a vibratory shakeout table after pouring and cooling of metal in the BMM line.

F005 (BMM Pouring and Cooling)
Pouring of molten metal into green sand molds with subsequent cooling

F006 (Hunter HMP-10 Pouring and Cooling)
Pouring molten metal into molds with subsequent cooling

F007 (BMM Moldmaking and Sand Preparation)
Handling and mixing of reclaim (used) sand and new (green) sand with bond and water in a mullor; preparation of green sand molds to shape the exterior of metal castings; application of mold parting spray

F008 (Hunter Operations Sand Preparation)
Mixing of return sand, new sand, bond and water to produce prepared green sand for moldmaking in the HMP-10 & HMP-20 lines.

F018 (Electric Induction Furnace #1)
Charging of raw material into furnace, melting of charge material, and tapping of molten metal into ladles.

F019 (Electric Induction Furnace #3)
Charging of raw materials into furnace, melting of charge materials, and tapping of molten metal into ladles.

F020 (Roadways and Parking Lots)
Raw material and product, shipping and employee vehicles; front end loader transport.

F022 (Storage Piles)
Storage of scrap materials, used pallets and spent sand.

F027 (Hunter HMP-10 Moldmaking)
The addition of sand and parting spray to cope and drag molds.

F028 (Hunter HMP-20 Moldmaking)
The addition of sand and parting spray to cope and drag molds.

F029 (Ductile Inoculation)
Ladle inoculation of molten metal at furnace.

F030 (Charge Handling)
Truck unloading and transporting scrap metal via an overhead magnetic crane, to charge bucket and thereafter to the furnaces.

F031 (Electric Induction Furnace #2)
Charging of raw material into furnace, melting of charge material, and tapping molten metal into ladles.

P011 (Grinding Operations)
Gates and risers cutoff, and abrasive cleaning of iron castings using grinding equipment.

P014 (Tumblast #1)
Rough cleaning of castings using steel shot in a shot blasting machine.

P019 (Tumblast #2)
Rough cleaning of castings using steel shot in a shot blasting machine.

P020 (Laempe I (L-20) Coremaking Machine)
Cold box coremaking using a binder and co-reactantsystem. Used to make the hollow part in castings (cores).

P021 (Bicor Coremaking Machine)
Automatic core machine using a binder an co-reactant system. Used to make the hollow part in castings (cores).

P023 (Laempe I (L-5))
Cold box coremaking using a two-part binder and catalyst system. Used to make the hollow part in castings (cores).

P025 (Laempe II (L-20) Coremaking Machine)
Cold box coremaking using a binder and co-reactant system. Used to make the hollow part in castings (cores).

P026 (Hunter HMP-20 Pouring and Cooling)
Pouring of molten metal into green sand molds with subsequent cooling.

P027 (Hunter Didion Shakeout)
Sand and metal separation using a rotating shakeout drum after the Hunter HMP-10 & HMP-20 pouring and cooling lines.

P028 (FlowCoat Operation)
Washing of cores on benches.

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 3745-77-04(A) 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:

Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087
(330) 425-9171

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

1. Monitoring and Related Recordkeeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.
ii. The date(s) analyses were performed.
iii. The company or entity that performed the analyses.
iv. The analytical techniques or methods used.
v. The results of such analyses.
vi. The operating conditions existing at the time of sampling or measurement.

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

i. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. These quarterly written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.) See B.8 below if no deviations occurred during the quarter.
iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. These semi-

annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, recordkeeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports submitted pursuant to OAC rule 3745-15-06 shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of deviations caused by malfunctions or upsets.

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

3. Risk Management Plans

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

4. Title IV Provisions

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

5. Severability Clause

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

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the

Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

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.

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.

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 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.

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.

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 appropriate Ohio EPA District Office or local air agency 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 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.

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.

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).

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.

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, except that no such notice shall be required for changes that qualify as insignificant emission 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; and

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.

(For further clarification, the permittee can refer to Engineering Guide #63 that is available in their STARSHIP software package.)

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.

18. Insignificant Activity

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.

B. State Only Enforceable Section

1. 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.

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

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

3. 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.

4. 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.

5. 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).

6. 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.

7. 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.

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

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

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforcable Section

1. This facility is subject to the applicable requirements specified in OAC Chapter 3745-25. In accordance with Ohio EPA Engineering Guide #64, the emission control action programs, as specified in OAC rule 3745-25-03, shall be developed and submitted within 60 days after receiving notification from Ohio EPA.

B. State Only Enforceable Section

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

F021- Pattern shop
F024- Sand unloading, handling and storage
P007- Airset coremaking line
P009- Small shell coremaking

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and/or control requirements contained within a Permit to Install for the emissions unit.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: BMM Shakeout (F003)

Activity Description: Sand and metal separation via a vibratory shakeout table after pouring and cooling of metal in the BMM line.

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 and metal separation via a vibratory shakeout table after pouring and cooling of metal in the BMM line (Particulate emissions are partially controlled by a baghouse.)	OAC rule 3745-17-11(B)(2)	Particulate emissions from the stack of the baghouse shall not exceed 3.84 pounds per hour. To ensure compliance with the 3.84 pounds per hour limitation, the permittee shall not exceed a particulate emission rate of 0.006 gr/dscf for the baghouse exhaust gases. See A.V.3.a.ii.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-17-08(B)(1)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B)(1) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.
	OAC rule 3745-31-05(A)(3) PTI 02-1511	Particulate emissions (stack and fugitive) shall not exceed 38.4 tons per year.

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 7 inches of water column while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a continuous basis.

2. The permittee shall record the amount of iron processed through this emissions unit annually, in tons.

3. The permittee shall collect and record each day the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

V. Testing Requirements

1. Compliance with the visible particulate emission limitation shall be determined in accordance with the method specified in OAC rule 3745-17-03(B)(1).

2. Compliance with the particulate emission limitation of 3.84 pounds per hour shall be determined in accordance with the method specified in OAC rule 3745-17-03(B)(10).

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

i. The emission testing shall be conducted within 3 months after issuance of this permit and within 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitation of 3.84 pounds per hour. The permittee shall be deemed to be in compliance with the 3.84 pounds of particulate emissions per hour limitation for this emissions unit and the hourly and/or grain loading particulate emission limitations for the other emissions units (i.e., F006, F008, F018, F019, F029, F031, P026, and P027) vented to this baghouse only if the testing pursuant to this term and condition shows a particulate emission grain loading not exceeding 0.006 grain per dry standard cubic foot of exhaust gases.

iii. The following test methods shall be employed to demonstrate compliance with the particulate emission limitations: Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

iv. The tests shall be conducted while emissions units F003, F006, F008, F018, F019, F029, F031, P026, and P027 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

A particulate emission test also shall be conducted at the inlet of the control device to determine the uncontrolled mass rate of emission for emissions unit F003, for purposes of applying Figure II of OAC rule 3745-17-11. For this testing, Method 5 of 40 CFR, Part 60, Appendix A shall be employed.

V. Testing Requirements (continued)

3.b Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, 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 emission tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

4. Compliance with the particulate emission (PE) limit of 38.4 tons/yr shall be determined in accordance with the following equation:

E = [(Ti x 3.2 lbs of PE/ton of iron x (0.95) x (1-.99)) + (Ti x 3.2 lbs of PE/ton of iron x (0.05))] x 1/2000 ton/pounds

where

E = tons of PE emitted per year

Ti = actual amount of iron processed per year (tons)

3.2 lbs of PE/ton of iron is the emission factor from AP-42, Table 12.10-7 (1/95 update), for a shakeout.

0.95 (95%) is the estimate of the collection efficiency of the air pollution capture hoods.

0.99 (99%) is the estimate of the control efficiency of the baghouse.

0.05 (5%) is the estimate of the fugitive emissions that escape the air pollution capture hoods.

This approach is being specified because it was used to develop the annual particulate emission limitation and assumes the above percentages are reasonably valid as long as the permittee maintains compliance with the limitation of 0.006 grain of particulate emission per dry standard cubic foot of exhaust gases and the visible particulate emission limitation.

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 and metal separation via a vibratory shakeout table after pouring and cooling of metal in the BMM line (Particulate emissions are partially controlled by a 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: BMM Pouring and Cooling (F005)

Activity Description: Pouring of molten metal into green sand molds with subsequent 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
BMM line: pouring and cooling of iron, with a maximum pour rate of 6 tons per hour	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.
	OAC rule 3745-31-05(A)(3) PTI 02-13677	Particulate emissions shall not exceed 3.84 pounds per hour and 9.9 tons per year. Volatile organic compound (VOC) emissions shall not exceed 1.68 pounds per hour and 4.4 tons per year. Sulfur dioxide (SO2) emissions shall not exceed 0.24 pound per hour and 0.62 ton per year. Nitrogen oxide (NOx) emissions shall not exceed 0.12 pound per hour and 0.30 ton per year. Carbon monoxide (CO) emissions shall not exceed 24 pounds per hour and 61.9 tons per year. Visible particulate emissions shall not exceed 20% opacity, as a three-minute average. See A.2.a.
	OAC rule 3745-18-06	Less stringent than the limitation established pursuant to OAC rule 3745-31-05.

2. Additional Terms and Conditions

2.a The maximum hourly pour rate for this emissions unit is 6.0 tons per hour. The maximum annual pour rate (based on facility's maximum furnace melting capacity) is 30,940 tons per year. The emission limitations in Section A.I are based on these production rates.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the amount of iron poured in this line annually, in tons.

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 of fugitive dust from this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate 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 abnormal visible particulate emission incident; and
e. any corrective actions taken to eliminate the abnormal visible particulate emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any abnormal visible particulate emissions of fugitive dust were observed from this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions. These reports shall be submitted to 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.

V. Testing Requirements

1. Compliance with the particulate emission limitation of 3.84 lbs/hr shall be determined in accordance with the following equation:

E = Ti x 0.64 lb of PE/ton of iron

where

E = lbs of particulate emissions per hour

Ti = maximum amount of iron processed per hour (tons)

0.64 lb of PE/ton of iron is the emission factor developed from emission testing on a similar emissions unit at a gray iron foundry.

2. Compliance with the particulate emission limitation of 9.9 tons/year shall be determined in accordance with the following equation:

E = Ti x 0.64 lb of PE/ton of iron x (1 ton /2000 pounds)

where

E = tons of particulate emissions per year

Ti = amount of iron processed per year (tons)

0.64 lb of PE/ton of iron is the emission factor for pouring and cooling developed from emission testing on a similar source at a gray iron foundry.

V. Testing Requirements (continued)

3. Compliance with the VOC emission limitation of 1.68 lbs/hr shall be determined in accordance with the following equation:

E = Ti x 0.14 lb of VOC/ton of iron

where

E = lbs of VOC emissions per hour, based on maximum hourly production

Ti = maximum hourly iron production rate, tons

0.14 lb of VOC/ton of iron is an emission factor in lb of VOC per ton of iron produced for pouring and cooling from SCC emission factors (30400320), U.S. EPA Source Classification Codes, 1997-98 update.

4. Compliance with the VOC emission limitation of 4.4 tons per year shall be determined in accordance with the following equation:

E = Ti x 0.14 lb of VOC/ton of iron x (1 ton/2000 pounds)

where

E = tons of VOC emitted per year

Ti = annual iron production rate, tons

0.14 lb of VOC/ton of iron is an emission factor in lb of VOC per ton of iron produced for pouring and cooling from SCC emission factors (30400320), U.S. EPA Source Classification Codes, 1997-98 update.

5. Compliance with the SO2 emission limitation of 0.24 lb/hr shall be determined in accordance with the following equation:

E = Ti x 0.02 lb of SO2/ton of iron

where

E = lbs of SO2 emitted per hour, based on maximum hourly production

Ti = maximum hourly iron production rate, tons

0.02 lb of SO2/ton of iron is an emission factor in lb of SO2 per ton of iron produced for pouring and cooling from SCC emission factors (30400320), U.S. EPA Source Classification Codes, 1997-98 update.

6. Compliance with the SO2 emission limitation of 0.62 ton per year shall be determined in accordance with the following equation:

E = Ti x 0.02 lb of SO2/ton of iron x (1 ton/2000 pounds)

where

E = tons of SO2 emissions per year

Ti = annual iron production rate, tons

0.02 lb of SO2/ton of iron is an emission factor in lb of SO2 per ton of iron produced for pouring and cooling from SCC emission factors (30400320), U.S. EPA Source Classification Codes, 1997-98 update.

V. Testing Requirements (continued)

7. Compliance with the NOx emission limitation of 0.12 lb/hr shall be determined in accordance with the following equation:

E = Ti x 0.01 lb of NOx/ton of iron

where

E = lbs of NOx emissions per hour, based on maximum hourly production

Ti = maximum hourly iron production rate, tons

0.01 lb of NOx/ton of iron is an emission factor in lb of NOx per ton of iron produced for pouring and cooling from SCC emission factors (30400320), U.S. EPA Source Classification Codes, 1997-98 update.

8. Compliance with the NOx emission limitation of 0.30 ton per year shall be determined in accordance with the following equation:

E = Ti x 0.01 lb of NOx/ton of iron x (1 ton/2000 pounds)

where

E = tons of NOx emissions per year

Ti = annual iron production rate, tons

0.01 lb of NOx/ton of iron is an emission factor in lb of NOx per ton of iron produced for pouring and cooling from SCC emission factors (30400320), U.S. EPA Source Classification Codes, 1997-98 update.

9. Compliance with the CO emission limitation of 24 lbs/hr shall be determined in accordance with the following equation:

E = Ti x 4.0 lbs of CO/ton of iron

where

E = lbs of CO emissions per hour, based on maximum hourly production

Ti = maximum hourly iron production rate, tons

4.0 lbs of CO/ton of iron is an emission factor in lbs of CO per ton of iron produced for pouring and cooling obtained from emission testing conducted at the GM Saginaw foundry.

10. Compliance with the CO emission limitation of 61.9 tons per year shall be determined in accordance with the following equation:

E = Ti x 4.0 lbs of CO/ton of iron x (1 ton/2000 pounds)

where

E = tons of CO emissions per year

Ti = annual iron production rate, tons

4.0 lbs of CO/ton of iron is an emission factor in lbs of CO per ton of iron produced for pouring and cooling obtained from emission testing conducted at the GM Saginaw foundry.

11. Compliance with the visible particulate emission limitation shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

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
BMM line: pouring and cooling of iron, with a maximum pour rate of 6 tons per hour	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: Hunter HMP-10 Pouring and Cooling (F006)

Activity Description: Pouring molten metal into molds with subsequent 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
pouring and cooling area for molds made on the Hunter HMP-10 molding machines (Particulate emissions from the cooling areas are controlled by a baghouse.)	OAC rule 3745-17-11(B)(2)	The limitation from this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-17-07(A)(1)	The limitation from this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.
	OAC rule 3745-31-05(A)(3) PTI 02-10079	Particulate emissions from the baghouse stack shall not exceed 0.54 pound per hour and 0.006 gr/dscf of exhaust gases. Fugitive particulate emissions shall not exceed 5.1 pounds per hour. Volatile organic compound (VOC) emissions shall not exceed 0.42 pound per hour. See A.2.a.
	OAC rule 3745-18-06	Sulfur dioxide (SO2) emissions shall not exceed 184.1 lbs/hr; see A.III.2.

2. Additional Terms and Conditions

2.a The opacity of the particulate emissions from the baghouse exhaust stack shall not exceed the value established during the most recent stack test that showed compliance with the particulate emission limitation. This opacity value shall be established in accordance with Engineering Guide #13. During the last compliance test on April 19,1996, the opacity was 0%.

II. Operational Restrictions

1. The maximum annual production rate for this emissions unit shall not exceed 13,200 tons of iron poured, based upon a rolling, 12-month summation of the monthly production rates.

2. The pressure drop across the baghouse shall be maintained within the range of 2 to 7 inches of water column while the emissions unit is in operation.

3. The collection efficiency of the air pollution capture hoods shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture.

III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #02-10079, issued on August 7, 1996: A.III.3. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

2. No record keeping and monitoring are required for the SO2 emission limitation because the maximum uncontrolled emission rate of SO2 cannot exceed the limitation.

3. The permittee shall maintain monthly records that list the following information:

a. the tons of iron poured; and

b. the rolling, 12-month summation of the monthly iron pour rates.

4. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a continuous basis.

5. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions of fugitive dust and for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate 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 particulate emissions incident; and
e. any corrective actions taken to eliminate the visible particulate emission.

The permittee shall collect and record each day the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month iron pour rate limitation. These reports shall be submitted to the Ohio EPA, Northeast District Office, no later than 45 days from the end of the month in which the exceedance occurred.

2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

IV. Reporting Requirements (continued)

3. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions of fugitive dust or visible particulate emissions from the stack were observed from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to 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.

V. Testing Requirements

1. Compliance with the visible particulate emission limitation for the baghouse stack shall be determined by using U.S. EPA Method 9 of 40 CFR, Part 60, Appendix A.

2. Compliance with the particulate emission limitations of 0.54 pound per hour and 0.006 gr/dscf of exhaust gases shall be determined by using U.S. EPA Method 5 of 40 CFR, Part 60, Appendix A.

The hourly limitation of 0.54 pound per hour is based on a grain loading limitation of 0.006 gr/dscf and the anticipated gas flow rate from emissions unit F006 of 10,500 scfm.

3. Compliance with the fugitive particulate emission limitation of 5.1 pounds per hour has been be determined in accordance with the following equation:

E = 3 tons of iron/hour x [(0.45 lb of PE/ton of iron x .66) + (0.45 lb of PE/ton of iron x .34 x.1)]

where

E = pounds of fugitive particulate emissions per hour

3 tons of iron/hour is the maximum iron pour rate for this unit.

0.45 lb of PE/ton of iron is the emission factor obtained from emission testing done on a similar unit at a gray iron foundry.

0.66 is the decimal fraction of particulate emissions due to pouring.

0.34 is the decimal fraction of particulate emissions due to cooling.

0.1 is the decimal fraction of particulate emissions from the cooling conveyor that is not captured.

4. Compliance with the VOC emission limitation of 0.42 pound per hour has been determined in accordance with the following equation:

E = 3 tons of iron/hour x 0.14 lb of VOC/ton of iron

where

E = pounds of VOC emissions per hour

3 tons of iron/hour is the maximum iron pour rate.

0.14 lb of VOC/ton of iron is an emission factor in lb of VOC per ton of iron produced for pouring and cooling from SCC emission factors (30400320), U.S. EPA Source Classification Codes, 1997-98 update.

V. Testing Requirements (continued)

5. Compliance with the SO2 emission limitation of 184.1 pounds per hour has been determined in accordance with the following equation:

E = 3 tons of iron/hour x 0.02 lb of SO2/ton of iron

where

E = pounds of SO2 emissions per hour

3 tons of iron/hour is maximum iron pour rate.

0.02 lb of SO2/ton of iron is an emission factor in lb of SO2 per ton of iron produced for pouring and cooling from SCC emission factors (30400320), U.S. EPA Source Classification Codes, 1997-98 update.

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

i. The emission testing shall be conducted within 3 months after issuance of this permit and within 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitations (i.e., 0.54 lb/hr and 0.006 gr/dscf). The permittee shall be deemed to be in compliance with the 0.54 lb/hr and 0.006 gr/dscf limitations for this emissions unit and the hourly and/or grain loading particulate emission limitations for the other emissions units (i.e., F003, F008, F018, F019, F029, F031, P026, and P027) vented to this baghouse only if the testing pursuant to this term and condition shows a particulate emission grain loading not exceeding 0.006 grain per dry standard cubic foot of exhaust gases.

iii. The following test methods shall be employed to demonstrate compliance with the particulate emission limitations: Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

iv. The test shall be conducted while emissions units F003, F006, F008, F018, F019, F029, F031, P026, and P027 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

6.b Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, 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 emission test shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

7. Compliance with the production rate limitation of 13,200 tons of iron poured for any 12-month period shall be based on the record keeping performed pursuant to Section A.III.3 of this permit.

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
pouring and cooling area for molds made on the Hunter HMP-10 molding machines (Particulate emissions from the cooling areas are controlled by a 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: BMM Moldmaking and Sand Preparation (F007)

Activity Description: Handling and mixing of reclaim (used) sand and new (green) sand with bond and water in a mullor; preparation of green sand molds to shape the exterior of metal castings; application of mold parting spray

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
handling and mixing of reclaim (used) sand and new (green) sand with bond and water in a muller; preparation of green sand molds to shape the exterior of metal castings; application of mold parting spray (Particulate emissions from the new sand hopper, return sand bucket elevator, transfer belt to vibrating screen, vibrating screen, sand storage bin, bucket elevator, weigh hopper and ring muller are partially controlled by a wet scrubber.)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)(2)	Particulate emissions from the wet scrubber shall not exceed 16.23 pounds per hour. To ensure compliance with the 16.23 pounds per hour limitation, the permittee shall not exceed a particulate emission rate of 0.006 gr/dscf for the baghouse exhaust gases. See A.2.b.
	OAC rule 3745-21-07(G)(2)	See A.2.a.
	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.

2. Additional Terms and Conditions

2.a. The requirements of this rule do not apply to this emissions unit in accordance with OAC rule 3745-21-07(A)(1). This emissions unit is an existing emissions unit and is not located in a "Priority I" county as indicated in OAC rule 3745-21-06(A).

2.b The allowable particulate emission rate for this emissions unit is determined by applying Figure II. Since the uncontrolled mass rate of emission for this unit has not been measured, the uncontrolled particulate emissions were estimated to be 129.6 pounds per hour by using an AP-42 emission factor. This permit requires the permittee to measure the uncontrolled mass rate of emission.

II. Operational Restrictions

1. The pressure drop across the scrubber shall be continuously maintained at a value of not less than two inches of water column at all times while the emissions unit is in operation.

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

III. Monitoring and/or Record Keeping Requirements

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

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

a. The pressure drop across the scrubber, in inches of water.

b. The scrubber water flow rate, in gallons per minute.

c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. The static pressure drop across the scrubber.

b. The scrubber water flow rate.

V. Testing Requirements

1. Compliance with the visible particulate emission limitation shall be determined in accordance with the method specified in OAC rule 3745-17-03(B)(1).

2. Compliance with the particulate emission limitation of 16.23 pounds per hour shall be determined in accordance with the method specified in OAC rule 3745-17-03(B)(10).

V. Testing Requirements (continued)

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

i. The emission testing shall be conducted within 3 months after issuance of this permit and within 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitation of 16.23 pounds per hour. The permittee shall be deemed to be in compliance with the 16.23 pounds of particulate emissions per hour limitation for this emissions unit and the hourly and/or grain loading particulate emission limitations for the other emissions units (i.e., F008, P020, P021, P023 and P025) vented to this scrubber only if the testing pursuant to this term and condition shows a particulate emission grain loading not exceeding 0.015 grain per dry standard cubic foot of exhaust gases.

iii. The following test methods shall be employed to demonstrate compliance with the particulate emission limitations: Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

iv. The tests shall be conducted while emissions units F007, F008, P020, P021, P023 and P025 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

A particulate emission test shall also be conducted at the inlet of the control device to determine the uncontrolled mass rate of emission for emissions unit F007, for purposes of applying Figure II of OAC Rule 3745-17-11. For this testing, Method 5 of 40 CFR, Part 60, Appendix A shall be employed.

3.b Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, 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 emission tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

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
handling and mixing of reclaim (used) sand and new (green) sand with bond and water in a muller; preparation of green sand molds to shape the exterior of metal castings; application of mold parting spray (Particulate emissions from the new sand hopper, return sand bucket elevator, transfer belt to vibrating screen, vibrating screen, sand storage bin, bucket elevator, weigh hopper and ring muller are partially controlled by a wet scrubber.)	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: Hunter Operations Sand Preparation (F008)

Activity Description: Mixing of return sand, new sand, bond and water to produce prepared green sand for moldmaking in the HMP-10 & HMP-20 lines.

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
mixing of return sand, new sand, bond and water to produce prepared green sand for moldmaking in the HMP-10 & HMP-20 lines (Particulate emissions from the sand cooler and muller are partially controlled by a wet scrubber. Particulate emissions from the return sand belt conveyor, magnetic separator, bucket elevators, premixer/aerator, oscillatory pan feeder, and double deck screener are partially controlled by a baghouse.)	OAC rule 3745-17-11(B)(2)	The limitation from this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-31-05(A)(3) PTI 02-9055	Particulate emissions from the baghouse stack shall not exceed 1.52 pounds per hour and 0.006 gr/dscf of exhaust gases. Particulate emissions from the scrubber stack shall not exceed 1.43 pounds per hour and 0.015 gr/dscf of exhaust gases. Fugitive particulate emissions shall not exceed 0.28 ton per year. See A.2.a.

2. Additional Terms and Conditions

2.a The opacity of the particulate emissions from the baghouse exhaust stack shall not exceed the value established during the most recent stack test that showed compliance with the particulate emission limitations. This opacity value shall be established in accordance with Engineering Guide #13. During the last compliance test on April 19,1996, the opacity was 0%, as a six-minute average.

II. Operational Restrictions

1. The maximum annual production rate for this emissions unit shall not exceed 171,600 tons of sand prepared, based upon a rolling,12-month summation of the monthly production rates.

2. The pressure drop across the baghouse shall be maintained within the range of 2 to 7 inches of water column while the emissions unit is in operation.

3. The collection efficiency of the air pollution capture hoods shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture.

4. The maximum annual operating hours for this emissions unit shall not exceed 4,400, based upon a rolling, 12-month summation of the monthly operating hours. The rolling, 12-month summation of the sand muller's operating time shall be recorded to demonstrate compliance with the annual operating hours limitation.

5. Beginning on April 1, 2001, the pressure drop across the scrubber shall be continuously maintained at a value of not less than two inches of water column at all times while the emissions unit is in operation.

Beginning on April 1, 2001, the scrubber water flow rate shall be continuously maintained at a value of not less than 94.2 gallons per minute at all times while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #02-9055, issued on August 2, 1995 and administratively modified on December 29,1999: A.III.3. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

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

2. The permittee shall properly install (by April 1, 2001), operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

Beginning on April 1, 2001, the permittee shall collect and record the following information each day:

a. The pressure drop across the scrubber, in inches of water.

b. The scrubber water flow rate, in gallons per minute.

c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

3. The permittee shall maintain monthly records that list the following information:

a. The sand throughput/production rate for emissions unit F008 for each month (tons).

b. The rolling, 12-month summation of the sand throughput/production rates (tons).

c. The operating hours of the emissions unit for each month.

d. The rolling, 12-month summation of the operating hours.

4. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a continuous basis.

5. For the baghouse serving this emissions unit, the permittee shall collect and record each day the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

IV. Reporting Requirements

1. Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #02-9055, issued on August 2, 1995 and administratively modified on December 29, 1999: A.IV.2 and A.IV.3. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation. These reports are due by the date identified in Part 1 - General Terms and Conditions of this permit under section (A)(1).

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation. These reports are due by the date identified in Part 1 - General Terms and Conditions of this permit under section (A)(1).

4. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

V. Testing Requirements

1. Compliance with the visible particulate emission limitation from the baghouse stack shall be determined in accordance with the method specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

2. Compliance with the particulate emission limitations of 1.52 pounds per hour and 0.006 gr/dscf of exhaust gases shall be determined in accordance with the method specified in OAC rule 3745-17-03(B)(10).

The hourly limitation of 1.52 pounds per hour is based on a grain loading limitation of 0.006 gr/dscf and the anticipated gas flow rate from emissions unit F008 to the baghouse of 29,500 scfm.

3. Compliance with the scrubber stack's particulate emission limitations of 1.43 pounds per hour and 0.015 gr/dscf of exhaust gases shall be determined in accordance with the method specified in OAC rule 3745-17-03(B)(10).

The hourly limitation of 1.43 pounds per hour is based on a grain loading limitation of 0.015 gr/dscf and the anticipated gas flow rate from emissions unit F008 to the scrubber of 11,125 scfm.

4. Compliance with the fugitive particulate emission (PE) limitation of 0.28 ton per year shall be determined in accordance with the following equation:

E = tons of sand processed per year x 3.6 lbs of PE/ton of sand x .002 x 1 ton/2000 pounds

where

E = tons of fugitive particulate emissions per year

tons of sand processed per year, based on the record keeping in Section A.III.3.

3.6 lbs of PE/ton of iron is the emission factor from AP-42, Table 12.10-7 (1995 update).

0.002 is the fraction of the total particulate emissions not captured.

5.a Compliance with the production rate limitation of 171,600 tons of sand prepared for any 12-month period shall be based on the record keeping performed pursuant to Section A.III.3 of this permit.

5.b Compliance with the operating hour limitation of 4,400 hours for any 12-month period shall be based on the record keeping performed pursuant to Section A.III.3 of this permit.

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

i. The emission testing shall be conducted within 3 months after issuance of this permit and within 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitations (i.e., 1.52 lbs/hr and 0.006 gr/dscf for the baghouse stack and 1.43 lbs/hr and 0.015 gr/dscf for the scrubber stack. The permittee shall be deemed to be in compliance with the above limitations and the hourly and/or grain loading particulate emission limitations for the other emissions units (i.e., F003, F006, F008, F018, F019, F029, F031, P026 and P027 vented to the baghouse and/or F007, F008, P020, P021, P023 and P025 vented to the scrubber) only if the testing pursuant to this term and condition shows particulate emission grain loadings not exceeding 0.006 and 0.015 grain per dry standard cubic foot of exhaust gases for the baghouse and scrubber stacks, respectively.

iii. The following test methods shall be employed to demonstrate compliance with the particulate emission limitations: Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

iv. The tests shall be conducted while the emissions units F003, F006, F007, F008, F018, F019, F029, F031, P020, P021, P023, P025, P026 and P027 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

V. Testing Requirements (continued)

6.b Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, 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 emission tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

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
mixing of return sand, new sand, bond and water to produce prepared green sand for moldmaking in the HMP-10 & HMP-20 lines (Particulate emissions from the sand cooler and muller are partially controlled by a wet scrubber. Particulate emissions from the return sand belt conveyor, magnetic separator, bucket elevators, premixer/aerator, oscillatory pan feeder, and double deck screener are partially controlled by a 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 Induction Furnace #1 (F018)

Activity Description: Charging of raw material into furnace, melting of charge material, and tapping of molten metal into ladles.

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 #1 with baghouse: charging of raw material into furnace, melting of charge material, and tapping of molten metal into ladles	OAC rule 3745-17-07(A)(1)	Less stringent than the limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-17-11(B)(2)	Less stringent than the limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-31-05(D) PTI 02-13038	Particulate emissions (PE): 11.02 tons per rolling, 12-month summation (6.38 tons from baghouse stack and 4.64 tons of fugitive PE) from emissions units F018, F019 and F031 lead (Pb): 0.339 ton per rolling, 12-month summation (0.0296 ton from baghouse stack and 0.309 ton of fugitive Pb) from F018, F019 and F031 See A.2.a.
	OAC rule 3745-31-05(A)(3) PTI 02-13038	PE: 0.006 gr/dscf and 1.85 lbs/hr from baghouse stack Pb: 0.0086 lb/hr from baghouse stack Visible particulate emissions shall not exceed 5% opacity, as a six-minute average, from the baghouse stack. See A.I.2.c.
	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.

2. Additional Terms and Conditions

2.a The annual PE and Pb emission limitations stated in Section A.I.1. are the combined emission limitations for units F018, F019 and F031. Emissions units F018, F019 and F031 are three electric induction furnaces, which share a common power supply. The maximum combined melt rate for the three furnaces is 10.8 tons per hour. The maximum melt rate for F018 is 9 tons per hour.

2.b Particulate emissions from emissions units F018, F019, and F031 are partially captured and controlled by the 150,000 acfm baghouse. This baghouse also controls particulate emissions from emissions units F003, F006, F008, F029, P026 and P027.

2.c The collection efficiency of the air pollution capture hoods for this emissions unit shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at all points of capture, and visible particulate emissions of fugitive dust shall not exceed 10% opacity, as a six-minute average. The permittee shall maintain all hoods and enclosures in good operating condition.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 7 inches of water column while the emissions unit is in operation.

2. The maximum annual production rate of iron for emissions units F018, F019 and F031 shall not exceed 30,940 tons, based upon a rolling, 12-month summation of the production rates.

To ensure enforceability during the first 12 calendar months of operation following the final issuance of PTI 02-13038, the permittee shall not exceed the production levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Production (tons of iron)
1	2578
1-2	5156
1-3	7734
1-4	10312
1-5	12890
1-6	15468
1-7	18046
1-8	20624
1-9	23202
1-10	25780
1-11	28358
1-12	30940

After the first 12 calendar months of operation following the final issuance of PTI 02-13038, compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

II. Operational Restrictions (continued)

3. The maximum annual operating hours for emissions units F018, F019 and F031 shall not exceed 6900, based upon a rolling, 12-month summation of the operating hours. Operating hours in a day are defined as the period of time beginning with the first charge of the day into any of the three furnaces and ending with the last metal tap of the day.

To ensure enforceability during the first 12 calendar months of operation following the final issuance of PTI 02-13038, the permittee shall not exceed the operating hour levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Operating Hours
1	575
1-2	1150
1-3	1725
1-4	2300
1-5	2875
1-6	3450
1-7	4025
1-8	4600
1-9	5175
1-10	5750
1-11	6325
1-12	6900

After the first 12 calendar months of operation following the final issuance of PTI 02-13038, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

III. Monitoring and/or Record Keeping Requirements

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

2. The permittee shall maintain monthly records of the following information for emissions units F018, F019 and F031:

a. The total combined production rate.

b. Beginning after the first 12 calendar months of operation following the final issuance of PTI 02-13038, the rolling, 12-month summation of the combined production rates.

Also, during the first 12 calendar months of operation following the final issuance of PTI 02-13038, the permittee shall record the combined cumulative production rate for each calendar month.

3. The permittee shall maintain monthly records of the following information for emissions units F018, F019 and F031:

a. The combined operating hours for each month.

b. Beginning after the first 12 calendar months of operation following the final issuance of PTI 02-13038, the rolling, 12-month summation of the combined operating hours.

Also, during the first 12 calendar months of operation following the final issuance of PTI 02-13038, the permittee shall record the combined cumulative operating hours for each calendar month.

4. The permittee shall collect and record each day the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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

5. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions of fugitive dust and for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate 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 particulate emissions incident; and
e. any corrective actions taken to eliminate the visible particulate emission.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation and, for the first 12 calendar months of operation following the final issuance of PTI 02-13038, all exceedances of the maximum allowable cumulative production levels. These reports are due by the dates specified in Part 1 - General Terms and Conditions of this permit under section (A)(1).

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation following the final issuance of PTI 02-13038, all exceedances of the maximum allowable cumulative operating hour levels. These reports are due by the dates specified in Part 1 - General Terms and Conditions of this permit under section (A)(1).

4. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions of fugitive dust or visible particulate emissions from the stack were observed from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to 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.

V. Testing Requirements

1. Emission Limitations: 0.006 gr/dscf and 1.85 pounds of PE per hour from the baghouse stack

Applicable Compliance Method: Compliance shall be determined in accordance with the method specified in OAC rule 3745-17-03(B)(10).

The hourly limitation of 1.85 pounds per hour is based on a grain loading limitation of 0.006 gr/dscf and the anticipated gas flow rate from emissions units F018, F019 and F031 to the baghouse of 36,000 scfm.

2. Emission Limitation: 0.0086 pound of Pb per hour from the baghouse stack

Applicable Compliance Method: Compliance shall be determined in accordance with Method 29 of 40 CFR, Part 60, Appendix A.

3. Compliance with the visible particulate emission limitation for the baghouse stack shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

4. Compliance with the visible particulate emission limitation for the fugitive emissions identified above shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

V. Testing Requirements (continued)

5. Emission Limitation: 11.02 tons of PE for any rolling, 12-month summation

Applicable Compliance Method: Compliance with this limitation is assumed provided that the emissions unit is controlled by the baghouse and the restrictions in production and operating hours are not exceeded. The following equation shall be used to estimate monthly PE:

Et = Es + Ef

where

Et = total particulate emissions (tons per month)

Es = 1.85 lbs of PE/hr x H (monthly hours of operation) x 1/2000 (ton/pounds), for stack emissions

Ef = 1.5 lbs of PE/ton of iron (uncontrolled PE emission factor from Ohio EPA's document "Reasonably Available Control Measures for Fugitive Dust Sources," Table 2.7-1 for electric induction furnaces) x 0.2 (fraction of emissions not captured) x Ti (tons of iron produced monthly) x 1/2000 (ton/pounds), for fugitive emissions

Sum the monthly emissions over any 12-month period to determine compliance with the rolling limitation.

6. Emission Limitation: 0.339 ton of Pb for any rolling, 12-month summation

Applicable Compliance Method: Compliance with this limitation is assumed provided that the emissions unit is controlled by the baghouse and the restrictions in production and operating hours are not exceeded. The following equation shall be used to estimate monthly Pb emissions:

Et = Es + Ef

where

Et = total lead emissions (tons per month)

Es = 0.0086 lb of Pb/hr x H (monthly hours of operation) x 1/2000 (ton/pounds), for stack emissions

Ef = 0.1 lb of Pb/ton of iron (uncontrolled Pb emission factor) x 0.2 (fraction of emissions not captured) x Ti (tons of iron produced monthly) x 1/2000 (ton/pounds), for fugitive emissions

Sum the monthly emissions over any 12-month period to determine compliance with the rolling limitation.

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

i. The emission testing shall be conducted within 3 months after issuance of this permit and within 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitations (i.e., 0.006 gr/dscf and 1.85 lbs/hr). The permittee shall be deemed to be in compliance with the 1.85 lbs/hr and 0.006 gr/dscf limitations for this emissions unit and the hourly and/or grain loading particulate emission limitations for the other emissions units (i.e., F003, F006, F008, F019, F029, F031, P026, and P027) vented to this baghouse only if the testing pursuant to this term and condition shows a particulate emission grain loading not exceeding 0.006 grain per dry standard cubic foot of exhaust gases.

iii. The following test methods shall be employed to demonstrate compliance with the particulate emission limitations: Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

iv. The test shall be conducted while emissions units F003, F006, F008, F018, F019, F029, F031, P026 and P027 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

V. Testing Requirements (continued)

7.b Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, 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 emission test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

8.a Compliance with the production rate limitation of 30,940 tons of iron produced for emissions units F018, F019 and F031 for any 12-month period shall be based on the record keeping performed pursuant to Section A.III.2 of this permit.

8.b Compliance with the operating hours limitation of 6,900 hours for emissions units F018, F019 and F031 for any 12-month period shall be based on the record keeping performed pursuant to Section A.III.3 of this permit.

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 #1 with baghouse: charging of raw material into furnace, melting of charge material, and tapping of molten metal into ladles	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 Induction Furnace #3 (F019)

Activity Description: Charging of raw materials into furnace, melting of charge materials, and tapping of molten metal into ladles.

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 #3 with baghouse: charging of raw material into furnace, melting of charge material, and tapping of molten metal into ladles	OAC rule 3745-17-07(A)(1)	Less stringent than the limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-17-11(B)(2)	Less stringent than the limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-31-05(D) PTI 02-13038	Particulate emissions (PE): 11.02 tons per rolling, 12-month summation (6.38 tons from baghouse stack and 4.64 tons of fugitive PE) from emissions units F018, F019 and F031 lead (Pb): 0.339 ton per rolling, 12-month summation (0.0296 ton from baghouse stack and 0.309 ton of fugitive Pb) from emissions units F018, F019 and F031 See A.I.2.c.
	OAC rule 3745-31-05(A)(3) PTI 02-13038	PE: 0.006 gr/dscf and 1.85 lbs/hr from baghouse stack Pb: 0.0086 lb/hr from baghouse stack Visible particulate emissions shall not exceed 5% opacity, as a six-minute average, from the baghouse stack. See A.II.2.

2. Additional Terms and Conditions

2.a The annual PE and Pb emission limitations stated in Section A.I.1. are the combined emission limitations for emissions units F018, F019 and F031. Emissions units F018, F019 and F031 are three electric induction furnaces, which share a common power supply. The maximum combined melt rate for the three furnaces is 10.8 tons per hour. The maximum melt rate for F019 is 9 tons per hour.

2.b Particulate emissions from emissions units F018, F019, and F031 are partially captured and controlled by the 150,000 acfm baghouse. This baghouse also controls the particulate emissions from emissions units F003, F006, F008, F029, P026 and P027.

2.c The collection efficiency of the air pollution capture hoods for this emissions unit shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at all points of capture, and visible particulate emissions of fugitive dust shall not exceed 10% opacity, as a six-minute average. The permittee shall maintain all hoods and enclosures in good operating condition.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 7 inches of water column while the emissions unit is in operation.

2. The maximum annual production rate of iron for emissions units F018, F019 and F031 shall not exceed 30,940 tons, based upon a rolling, 12-month summation of the production rates.

To ensure enforceability during the first 12 calendar months of operation following the final issuance of PTI 02-13038, the permittee shall not exceed the production levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Production (tons of iron)
1	2578
1-2	5156
1-3	7734
1-4	10312
1-5	12890
1-6	15468
1-7	18046
1-8	20624
1-9	23202
1-10	25780
1-11	28358
1-12	30940

After the first 12 calendar months of operation following the final issuance of PTI 02-13038, compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

II. Operational Restrictions (continued)

3. The maximum annual operating hours for emissions units F018, F019 and F031 shall not exceed 6,900, based upon a rolling, 12-month summation of the operating hours. Operating hours in a day are defined as the period of time beginning with the first charge of the day into any of the three furnaces and ending with the last metal tap of the day.

To ensure enforceability during the first 12 calendar months of operation following the final issuance of PTI 02-13038, the permittee shall not exceed the operating hour levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Operating Hours
1	575
1-2	1150
1-3	1725
1-4	2300
1-5	2875
1-6	3450
1-7	4025
1-8	4600
1-9	5175
1-10	5750
1-11	6325
1-12	6900

After the first 12 calendar months of operation following the final issuance of PTI 02-13038, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

III. Monitoring and/or Record Keeping Requirements

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

2. The permittee shall maintain monthly records of the following information for emissions units F018, F019 and F031:

a. The total combined production rate.

b. Beginning after the first 12 calendar months of operation following the final issuance of PTI 02-13038, the rolling, 12-month summation of the combined production rates.

Also, during the first 12 calendar months of operation following the final issuance of PTI 02-13038, the permittee shall record the combined cumulative production rate for each calendar month.

3. The permittee shall maintain monthly records of the following information for emissions units F018, F019 and F031:

a. The combined operating hours for each month.

b. Beginning after the first 12 calendar months of operation following the final issuance of PTI 02-13038, the rolling, 12-month summation of the combined operating hours.

Also, during the first 12 calendar months of operation following the final issuance of PTI 02-13038, the permittee shall record the combined cumulative operating hours for each calendar month.

4. The permittee shall collect and record each day the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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

5. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions of fugitive dust and for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate 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 particulate emissions incident; and
e. any corrective actions taken to eliminate the visible particulate emission.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation and, for the first 12 calendar months of operation following the final issuance of PTI 02-13038, all exceedances of the maximum allowable cumulative production levels. These reports are due by the dates specified in Part 1 - General Terms and Conditions of this permit under section (A)(1).

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation following the final issuance of PTI 02-13038, all exceedances of the maximum allowable cumulative operating hour levels. These reports are due by the dates specified in Part 1 - General Terms and Conditions of this permit under section (A)(1).

4. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions of fugitive dust or visible particulate emissions from the stack were observed from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to 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.

V. Testing Requirements

1. Emission Limitations: 0.006 gr/dscf and 1.85 pounds PE per hour from the baghouse stack

Applicable Compliance Method: Compliance shall be determined in accordance with the method specified in OAC rule 3745-17-03(B)(10).

The hourly limitation of 1.85 pounds per hour is based on a grain loading limitation of 0.006 gr/dscf and the anticipated gas flow rate from emissions units F018, F019 and F031 to the baghouse of 36,000 scfm.

2. Emission Limitation: 0.0086 pound of Pb per hour from the baghouse stack

Applicable Compliance Method: Compliance shall be determined in accordance with Method 29 of 40 CFR, Part 60, Appendix A.

3. Compliance with the visible particulate emission limitation for the baghouse stack shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

4. Compliance with the visible particulate emission limitation for the fugitive emissions identified above shall be determined in accordance with Test Method 9 of 40 CFR, Part 60, Appendix A.

V. Testing Requirements (continued)

5. Emission Limitation: 11.02 tons of PE for any rolling, 12-month summation

Applicable Compliance Method: Compliance with this limitation is assumed provided that the emissions unit is controlled by the baghouse and the restrictions in production and operating hours are not exceeded. The following equation shall be used to estimate monthly PE:

Et = Es + Ef

where

Et = total particulate emissions (tons per month)

Es = 1.85 lbs of PE/hr x H (monthly hours of operation) x 1/2000 (ton/pounds), for stack emissions

Ef = 1.5 lbs of PE/ton of iron (uncontrolled PE factor from Ohio EPA's document "Reasonably Available Control Measures for Fugitive Dust Sources," Table 2.7-1 for electric induction furnaces) x 0.2 (fraction of emissions not captured) x Ti (tons of iron produced monthly) x 1/2000 (ton/pounds), for fugitive emissions

Sum the monthly emissions over any 12-month period to determine compliance with the rolling limitation.

6. Emission Limitation: 0.339 ton of Pb for any rolling, 12-month summation

Applicable Compliance Method: Compliance with this limitation is assumed provided that the emissions unit is controlled by the baghouse and the restrictions in production and operating hours are not exceeded. The following equation shall be used to estimate monthly Pb emissions:

Et = Es + Ef

where

Et = total lead emissions (tons per month)

Es = 0.0086 lb Pb/hr x H (monthly hours of operation) x 1/2000 (ton/pounds), for stack emissions

Ef = 0.1 lb of Pb/ton of iron (uncontrolled Pb emission factor) x 0.2 (fraction of emission not captured) x Ti (tons of iron produced monthly) x 1/2000 (ton/pounds), for fugitive emissions

Sum the monthly emissions over any 12-month period to determine compliance with the rolling limitation.

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

i. The emission testing shall be conducted within 3 months after issuance of the permit and within 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitations (i.e., 0.006 gr/dscf and 1.85 lbs/hr). The permittee shall be deemed to be in compliance with the 1.85 lbs/hr and 0.006 gr/dscf limitations for this emissions unit and the hourly and/or grain loading particulate emission limitations for the other emissions units (i.e., F003, F006, F008, F018, F029, F031, P026, and P027) vented to this baghouse only if the testing pursuant to this term and condition shows a particulate emission grain loading not exceeding 0.006 grain per dry standard cubic foot of exhaust gases.

iii. The following test methods shall be employed to demonstrate compliance with the particulate emission limitations: Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

iv. The test shall be conducted while emissions units F003, F006, F008, F018, F019, F029, F031, P026 and P027 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

V. Testing Requirements (continued)

7.b Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency 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 emission test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

8.a Compliance with the production rate limitation of 30,940 tons of iron produced for emissions units F018, F019 and F031 for any 12-month period shall be based on the record keeping performed pursuant to Section A.III.2 of this permit.

8.b Compliance with the operating hours limitation of 6,900 hours for emissions units F018, F019 and F031 for any 12-month period shall be based on the record keeping performed pursuant to Section A.III.3 of this permit.

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 #3 with baghouse: charging of raw material into furnace, melting of charge material, and tapping of molten metal into ladles	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: Roadways and Parking Lots (F020)

Activity Description: Raw material and product, shipping and employee vehicles; front end loader transport.

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
plant roadways and parking areas	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.

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

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
plant roadways and parking areas	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: Storage Piles (F022)

Activity Description: Storage of scrap materials, used pallets and spent 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
storage piles	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.

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

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
storage piles	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: Hunter HMP-10 Moldmaking (F027)

Activity Description: The addition of sand and parting spray to cope and drag 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
two Hunter HMP-10 moldmaking machines	OAC rule 3745-21-07(G)(2)	See A.I.2.a.
	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.
	OAC rule 3745-31-05(A)(3) PTI 02-12995	Organic compound (OC) emissions shall not exceed 5 pounds per hour and 21.9 tons per year. Particulate emissions (PE) shall not exceed 0.12 pound per hour and 0.53 ton per year. Visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average.

2. Additional Terms and Conditions

2.a The permittee shall not employ any liquid organic material in this emissions unit that is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep the following records on all materials used in this emissions unit:

a. An identification of each chemical compound in each organic material and its physical state.

b. For any liquid organic material, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

2. Monitoring and/or record keeping requirements for the hourly organic compound emission limitation are not required by this permit. Based on applying the parting spray compound at the maximum rate of 0.80 gallon per hour and assuming 100% evaporation of the organic compounds at the moldmaking machine, the actual organic compound emission would not exceed the allowable emission rate of 5 pounds per hour.

3. In order to determine annual OC emissions, the permittee shall keep the following records each month:

a. The company identification of the pattern spray used.

b. The amount of parting spray used (gallons).

c. The organic compound content of the parting spray (lbs of OC/gal).

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions of fugitive dust from this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emission;
b. whether the emission is representative of normal operations;
c. if the emission is not representative of normal operations, the cause of the abnormal emission;
d. the total duration of any visible particulate emission incident; and
e. any corrective actions taken to eliminate the visible particulate emission.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that contain an identification of each day during which any photochemically reactive material was employed.

2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions of fugitive dust were observed from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to 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.

V. Testing Requirements

1. Emission Limitation: 0.12 lb of PE/hr

Applicable Compliance Method: To determine the maximum particulate emission rate, the following equation shall be used:

E = Ti x 0.04 lb of PE/ton of iron

where

E = maximum lbs of particulate emissions per hour

Ti = maximum iron production rate for the Hunter HMP-10 line (3 tons per hour)

0.04 lb of PE/ton of iron is an emission factor in lbs of particulate emissions per ton of iron produced (from Ohio EPA's document "Reasonably Available Control Measures for Fugitive Dust Sources," Table 2.7-1 for mold making).

V. Testing Requirements (continued)

2. Emission Limitation: 0.53 ton of PE per year

Applicable Compliance Method: This limitation is based on the allowable hourly emission limitation (0.12 lb/hr) multiplied by the maximum possible operating hours (8760 hr/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

3. Emission Limitation: visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average

Applicable Compliance Method: Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

4. Emission Limitation: 21.9 tons of OC/yr

Applicable Compliance Method: Compliance with this OC emission limitation is ensured if compliance is maintained with the hourly OC emission limitation. The annual OC emission rate shall be calculated using the following equation:

E = (VOL) x (OC) x 1 ton/2000 lbs

where

E = tons of OC emissions per year
VOL = gallons of parting spray used annually
OC = lbs of OC/gallon of parting spray

Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the parting spray employed in the emissions unit.

5. Emission Limitation: 5 lbs of OC/hr

Applicable Compliance Method: Compliance with the OC emission limitation shall be determined by multiplying the maximum parting spray compound rate, in gallons per hour, by the OC content of the parting spray compound, in pounds of OC per gallon of parting spray compound.

Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the parting spray employed in the emissions unit.

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
two Hunter HMP-10 moldmaking machines	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: Hunter HMP-20 Moldmaking (F028)

Activity Description: The addition of sand and parting spray to cope and drag 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
two Hunter HMP-20 moldmaking machines	OAC rule 3745-21-07(G)(2)	See A.I.2.a.
	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.
	OAC rule 3745-31-05(A)(3) PTI 02-12995	Organic compound (OC) emissions shall not exceed 7.59 pounds per hour and 12.6 tons per year. See A.2.b. Particulate emissions (PE) shall not exceed 0.24 pound per hour and 1.05 tons per year. Visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average.

2. Additional Terms and Conditions

2.a The permittee shall not employ any liquid organic material in this emissions unit that is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

2.b. The annual OC emission limitation of 12.6 tons per year is based on the maximum amount of parting spray that can be used (i.e., 3,765 gallons per year) and 100% evaporation of the organic compounds.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep the following records on all materials used in this emissions unit:

a. An identification of each chemical compound in each organic material and its physical state.

b. For any liquid organic material, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

2. Monitoring and/or record keeping requirements for the hourly organic compound limitation are not required by this permit. Based on applying the parting spray compound at the maximum rate of 1.21 gallons per hour and assuming 100% evaporation of the organic compounds at the moldmaking machine, the actual organic compound emission would not exceed the allowable emission rate of 7.59 pounds per hour.

3. In order to determine annual OC emissions, the permittee shall keep the following records each month:

a. The company identification of the pattern spray used.

b. The amount of parting spray used (gallons).

c. The organic compound content of the parting spray (lbs of OC/gal).

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions of fugitive dust from this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate 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 particulate emission incident; and
e. any corrective actions taken to eliminate the visible particulate emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that contain an identification of each day during which any photochemically reactive material was employed.

2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions of fugitive dust were observed from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to 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.

V. Testing Requirements

1. Emission Limitation: 0.24 lb of PE/hr

Applicable Compliance Method: To determine the maximum particulate emission rate, the following equation shall be used:

E = Ti x 0.04 lb of PE/ton of iron

where

E = maximum lbs of particulate emissions per hour

Ti = maximum iron production rate for the Hunter HMP-20 line (6 tons per hour)

0.04 lb of PE/ton of iron is an emission factor in lbs of particulate emissions per ton of iron produced (from Ohio EPA's document "Reasonably Available Control Measures for Fugitive Dust Sources," Table 2.7-1 for mold making).

V. Testing Requirements (continued)

2. Emission Limitation: 1.05 tons of PE per year

Applicable Compliance Method: This limitation is based on the allowable hourly emission limitation (0.12 lb/hr) multiplied by the maximum possible operating hours (8760 hr/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

3. Emission Limitation: visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average

Applicable Compliance Method: Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

4. Emission Limitation: 12.6 tons of OC/yr

Applicable Compliance Method: Compliance with this OC emission limitation is ensured if compliance is maintained with the hourly OC emission limitation. The annual OC emission rate shall be calculated using the following equation:

E = (VOL) x (OC) x 1 ton/2000 lbs

where

E = tons of OC emissions per year
VOL = gallons of parting spray used annually
OC = lbs of OC/gallon of parting spray

Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the parting spray employed in the emissions unit.

5. Emission Limitation: 7.59 lbs of OC/hr

Applicable Compliance Method: Compliance with the OC emission limitation shall be determined by multiplying the maximum parting spray compound rate, in gallons per hour, by the OC content of the parting spray compound, in pounds of OC per gallon of parting spray compound.

Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the parting spray employed in the emissions unit.

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
two Hunter HMP-20 moldmaking machines	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: Ductile Inoculation (F029)

Activity Description: Ladle inoculation of molten metal at 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
Ladle inoculation of molten metal to produce ductile iron. Particulate emissions are partially controlled by a baghouse.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)(2)	Particulate emissions from the baghouse stack shall not exceed 3.9 pounds per hour. To ensure compliance with the 3.9 pounds per hour limitation, the permittee shall not exceed a particulate emission rate of 0.006 gr/dscf for the baghouse exhaust gases. See A.2.a and A.V.3.a.ii.
	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.

2. Additional Terms and Conditions

2.a The particulate emission limitation for this emissions unit was determined by applying Figure II of OAC rule 3745-17-11. Since the uncontrolled mass rate of emission for this unit has not been measured, the uncontrolled particulate emissions were estimated to be 19.5 pounds per hour by using an AP-42 emission factor. This permit requires the permittee to measure the uncontrolled mass rate of emission.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 7 inches of water column while the emissions unit is in operation.

2. The collection efficiency of the air pollution capture hoods for this emissions unit shall be maintained in accordance with good engineering practice so as not to increase the amount of fugitive particulate emissions.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a continuous basis.

2. The permittee shall collect and record each day the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

V. Testing Requirements

1. Compliance with the visible particulate emission limitation shall be determined by using the method specified in OAC rule 3745-17-03(B)(1).

2. Compliance with the particulate emission limitation of 3.9 pounds per hour shall be determined in accordance the method specified in OAC rule 3745-17-03(B)(10).

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

i. The emission testing shall be conducted within 3 months after issuance of the permit and within 6 months prior expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitation of 3.9 pounds per hour. The permittee shall be deemed to be in compliance with the 3.9 lbs/hr limitation for this emissions unit and the hourly and/or grain loading particulate emission limitations for the other emissions units (i.e., F003, F006, F008, F018, F019, F031, P026, and P027) vented to this baghouse only if the testing pursuant to this term and condition shows a particulate emission grain loading not exceeding 0.006 grain per dry standard cubic foot of exhaust gases.

iii. The following test methods shall be employed to demonstrate compliance with the particulate emission limitations: Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

iv. The tests shall be conducted while emissions units F003, F006, F008, F018, F019, F029, F031, P026 and P027 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

A particulate emission test also shall be conducted at the inlet of the control device to determine the uncontrolled mass rate of emission for emissions unit F029, for purposes of applying Figure II of OAC Rule 3745-17-11. For this testing, Method 5 of 40 CFR, Part 60, Appendix A shall be employed.

3.b Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, 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 emission tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA Northeast District Office within 30 days following completion of the tests.

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
Ladle inoculation of molten metal to produce ductile iron. Particulate emissions are partially controlled by a 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: Charge Handling (F030)

Activity Description: Truck unloading and transporting scrap metal via an overhead magnetic crane, to charge bucket and thereafter to the furnaces.

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
scrap metal handling: truck unloading, weigh scale loading and transfer to charge bucket	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.

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

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
scrap metal handling: truck unloading, weigh scale loading and transfer to charge bucket	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 Induction Furnace #2 (F031)

Activity Description: Charging of raw material into furnace, melting of charge material, and tapping molten metal into ladles.

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 #2 with baghouse: charging of raw material into furnace, melting of charge material, and tapping of molten metal into ladles	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)(2)	Less stringent than the limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-31-05(D) PTI 02-13038	Particulate emissions (PE): 11.02 tons per rolling, 12-month summation (6.38 tons from baghouse stack and 4.64 tons of fugitive PE) from emissions units F018, F019 and F031 lead (Pb): 0.339 ton per rolling, 12-month summation (0.0296 ton from baghouse stack and 0.309 ton of fugitive PE) from emissions units F018, F019 and F031 See A.I.2.c.
	OAC rule 3745-31-05(A)(3) PTI 02-13038	PM: 0.006 gr/dscf and 1.85 lbs/hr from baghouse stack Pb: 0.0086 lb/hr from baghouse stacl Visible particulate emissions shall not exceed 5% opacity, as a six-minute average, from the baghouse stack See A.II.2.
	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.

2. Additional Terms and Conditions

2.a The annual PE and Pb emission limitations stated in Section A.I.1. are the combined emission limitations for units F018, F019 and F031. Emissions units F018, F019 and F031 are three electric induction furnaces, which share a common power supply. The maximum combined melt rate for the three furnaces is 10.8 tons per hour. The maximum melt rate for F031 is 9 tons per hour.

2.b Particulate emissions from emissions units F018, F019 and F031 are partially captured and controlled by the 150,000 acfm baghouse. This baghouse also controls particulate emissions from emissions units F003, F006, F008, F018, F019, F029, P026 and P027.

2.c The collection efficiency of the air pollution capture hoods for this emissions unit shall be sufficient to minimize or eliminate visible particulate emission of fugitive dust at all points of capture, and visible particulate emissions of fugitive dust shall not exceed 10% opacity, as a six-minute average. The permittee shall maintain all hoods and enclosures in good operating condition.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 7 inches of water column while the emissions unit is in operation.

2. The maximum annual production rate of iron for emissions units F018, F019 and F031 shall not exceed 30,940 tons, based upon a rolling, 12-month summation of the production rates.

To ensure enforceability during the first 12 calendar months of operation following the final issuance of PTI 02-13038, the permittee shall not exceed the production levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Production (tons of iron)
1	2578
1-2	5156
1-3	7734
1-4	10312
1-5	12890
1-6	15468
1-7	18046
1-8	20624
1-9	23202
1-10	25780
1-11	28358
1-12	30940

After the first 12 calendar months of operation following the final issuance of PTI 02-13038, compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

II. Operational Restrictions (continued)

3. The maximum annual operating hours for emissions units F018, F019 and F031 shall not exceed 6,900, based upon a rolling, 12-month summation of the operating hours. Operating hours in a day are defined as the period of time beginning with the first charge of the day into any of the three furnaces and ending with the last metal tap of the day.

To ensure enforceability during the first 12 calendar months of operation following the final issuance of PTI 02-13038, the permittee shall not exceed the operating hour levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Operating Hours
1	575
1-2	1150
1-3	1725
1-4	2300
1-5	2875
1-6	3450
1-7	4025
1-8	4600
1-9	5175
1-10	5750
1-11	6325
1-12	6900

After the first 12 calendar months of operation following the final issuance of PTI 02-13038, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

III. Monitoring and/or Record Keeping Requirements

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

2. The permittee shall maintain monthly records of the following information for emissions units F018, F019 and F031:

a. The total production rate.

b. Beginning after the first 12 calendar months of operation following the final issuance of PTI 02-13038, the rolling, 12-month summation of the combined production rates.

Also, during the first 12 calendar months of operation following the final issuance of PTI 02-13038, the permittee shall record the combined cumulative production rate for each calendar month.

3. The permittee shall maintain monthly records of the following information for emissions units F018, F019 and F031:

a. The combined operating hours for each month.

b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the combined operating hours.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the combined cumulative operating hours for each calendar month.

4. The permittee shall collect and record each day the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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

5. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions of fugitive dust and for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate 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 particulate emissions incident; and
e. any corrective actions taken to eliminate the visible particulate emission.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation and, for the first 12 calendar months of operation following the final issuance of PTI 02-13038, all exceedances of the maximum allowable cumulative production levels. These reports are due by the dates specified in Part 1 - General Terms and Conditions of this permit under section (A)(1).

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation following the final issuance of PTI 02-13038, all exceedances of the maximum allowable cumulative operating hour levels. These reports are due by the dates specified in Part 1 - General Terms and Conditions of this permit under section (A)(1).

4. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions of fugitive dust or visible particulate emissions from the stack were observed from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to 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.

V. Testing Requirements

1. Emission Limitation: 0.006 gr/dscf and 1.85 pounds of PE per hour from the baghouse stack

Applicable Compliance Method: Compliance shall be determined in accordance with the method specified in OAC rule 3745-17-03(B)(10).

The hourly limitation of 1.85 pounds per hour is based on a grain loading limitation of 0.006 gr/dscf and the anticipated gas flow rate from emissions units F018, F019 and F031 to the baghouse of 36,000 scfm.

2. Emission Limitation: 0.0086 pound of Pb per hour from the baghouse stack

Applicable Compliance Method: Compliance shall be determined in accordance with Method 29 of 40 CFR, Part 60, Appendix A.

3. Compliance with the visible particulate emission limitation for the baghouse stack shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

4. Compliance with the visible particulate emission limitation for the fugitive emissions identified above shall be determined in accordance with Test Method 9 of 40 CFR, Part 60, Appendix A.

V. Testing Requirements (continued)

5. Emission Limitation: 11.02 tons of PE for any rolling, 12-month summation

Applicable Compliance Method: Compliance with this limitation is assumed provided that the emissions unit is controlled by the baghouse and the restrictions in production and operating hours are not exceeded. The following equation shall be used to estimate monthly PE:

Et = Es + Ef

where

Et = total particulate emissions (tons per month)

Es = 1.85 lbs of PE/hr x H (monthly hours of operation) x 1/2000 (ton/pounds), for stack emissions

Ef = 1.5 lbs of PE/ton of iron (uncontrolled PE emission factor from Ohio EPA's document "Reasonably Available Control Measures for Fugitive Dust Sources," Table 2.7-1 for electric induction furnaces) x 0.2 (fraction of emissions not captured) x Ti (tons of iron produced monthly) x 1/2000 (ton/pounds), for fugitive emissions

Sum the monthly emissions over any 12-month period to show compliance with the rolling limitation.

6. Emission Limitation: 0.339 ton of Pb for any rolling, 12-month summation

Applicable Compliance Method: Compliance with this limitation is assumed provided that the emissions unit is controlled by the baghouse and the restrictions in production and operating hours are not exceeded. The following equation shall be used to estimate monthly Pb emission:

Et = Es + Ef

where

Et = total lead emissions (tons per month)

Es = 0.0086 lb of Pb/hr x H (monthly hours of operation) x 1/2000 (ton/pounds), for stack emissions

Ef = 0.1 lb of Pb/ton of iron (uncontrolled Pb emission factor) x 0.2 (fraction of emissions not captured) x Ti (tons of iron produced monthly) x 1/2000 (ton/pounds), for fugitive emissions

Sum the monthly emissions over any 12-month period to show compliance with the rolling limitation.

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

i. The emission testing shall be conducted within 3 months after issuance of the permit and within 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitations (i.e., 0.006 gr/dscf and 1.85 lbs/hr). The permittee shall be deemed to be in compliance with the 1.85 lbs/hr and 0.006 gr/dscf limitations for this emissions unit and the hourly and/or grain loading particulate emission limitations for the other emissions units (i.e., F003, F006, F008, F018, F019, F029, P026, and P027) vented to this baghouse only if the testing pursuant to this term and condition shows a particulate emission grain loading not exceeding 0.006 grain per dry standard cubic foot of exhaust gases.

iii. The following test methods shall be employed to demonstrate compliance with the particulate emission limitations: Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

iv. The test shall be conducted while emissions units F003, F006, F008, F018, F019, F029, F031, P026 and P027 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

V. Testing Requirements (continued)

7.b Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency 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 emission test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

8.a Compliance with the production rate limitation of 30,940 tons of iron produced for emissions units F018, F019 and F031 for any 12-month period shall be based on the record keeping performed pursuant to Section A.III.2 of this permit.

8.b Compliance with the operating hours limitation of 6,900 hours for emissions units F018, F019 and F031 for any 12-month period shall be based on the record keeping performed pursuant to Section A.III.3 of this permit.

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 #2 with baghouse: charging of raw material into furnace, melting of charge material, and tapping of molten metal into ladles	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: Grinding Operations (P011)

Activity Description: Gates and risers cutoff, and abrasive cleaning of iron castings using grinding equipment.

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
Gates and risers cutoff, and abrasive cleaning of iron castings using grinding equipment. Particulate emissions from eight 30-inch snag grinders, 2 swing grinders, and 2 cut-off saws are partially controlled by a baghouse. Particulate emissions from 1 swing grinder, 1 cut-off saw, and hand-held grinders and chippers are not controlled.	OAC rule 3745-17-11(B)(2)	Less stringent than the limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-17-07(A)(1)	Less stringent than the limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-31-05(A)(3) PTI 02-13677	Particulate emissions (PE) shall not exceed 1.02 pounds per hour and 0.01 gr/dscf of exhaust gases from the baghouse stack. Particulate emissions from the stack shall not exceed 4.4 tons per year. Fugitive particulate emissions shall not exceed 9.9 tons per year. See A.II.2. Visible particulate emissions from the baghouse stack shall not exceed 5 percent opacity, as a six-minute average. See A.I.2.a.

2. Additional Terms and Conditions

2.a The collection efficiency of the air pollution capture hoods for this emissions unit shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at all points of capture, and visible particulate emissions of fugitive dust shall not exceed 20% opacity, as a three-minute average. The permittee shall maintain all hoods and enclosures in good operating condition.

II. Operational Restrictions

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

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse once each day.

2. The permittee shall record the amount of iron processed in this emissions unit annually, in tons.

3. The permittee shall collect and record each day the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions of fugitive dust and for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate 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 particulate emissions incident; and
e. any corrective actions taken to eliminate the visible particulate emission.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

IV. Reporting Requirements (continued)

2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions of fugitive dust or visible particulate emissions from the stack were observed from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to 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.

V. Testing Requirements

1. Compliance with the visible particulate emission limitation for the baghouse stack shall be determined by using U.S. EPA Method 9 of 40 CFR, Part 60, Appendix A.

2. Compliance with the particulate emission limitations of 1.02 pounds per hour and 0.01 gr/dscf of exhaust gases shall be determined in accordance with method specified in OAC rule 3745-17-03(B)(10).

The hourly limitation of 1.02 pounds per hour is based on a grain loading limitation of 0.01 gr/dscf and the anticipated gas flow rate from emissions unit P011 to the baghouse of 11,984 scfm.

3. Emission Limitation: 4.4 tons of particulate emissions per year from the stack

Applicable Compliance Method: This limitation is based on the allowable hourly emission limitation (1.02 lbs/hr) multiplied by the maximum possible operating hours (8760 hr/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

4. Compliance with the fugitive particulate emission limitation of 9.9 tons per year shall be determined in accordance with the following equation:

E = tons of iron/year x 3.2 lbs of PE/ton of iron x (1 - .8) x 1 ton/2000 pounds

where

E = tons of particulate emissions per year

tons of iron/year = amount of iron cleaned per year

3.2 lbs of PE/ton of iron is the uncontrolled emission factor for particulate emissions from casting cleaning obtained by multiplying the emission factor provided in the PTI application (1.6 lbs of PE/ton) by a factor of 2, to account for uncertainty.

0.8 is the fraction of particulate emissions captured by hoods and vented to the baghouse.

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

i. The emission testing shall be conducted within 3 months after issuance of the permit and within 6 months prior to expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitations (i.e., 1.02 lbs/hr and 0.01 gr/dscf). The permittee shall be deemed to be in compliance with the 1.02 lbs/hr and 0.01 gr/dscf limitations for this emissions unit and the hourly and/or grain loading particulate emission limitations for the other emissions units (i.e., P014 and P019) vented to this baghouse only if the testing pursuant to this term and condition shows a particulate emission grain loading not exceeding 0.01 grain per dry standard cubic foot of exhaust gases.

iii. The following test methods shall be employed to demonstrate compliance with the particulate emission limitations: Methods 1 through 5 of 40 CFR Part 60, Appendix A.

iv. The test shall be conducted while emissions units P011, P014 and P019 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

V. Testing Requirements (continued)

5.b Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, 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 emission test shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

6. Compliance with the visible particulate emissions of fugitive dust limitation shall be determined by the method specified in Method 9 of 40 CFR, Part 60, Appendix A, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

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
Gates and risers cutoff, and abrasive cleaning of iron castings using grinding equipment. Particulate emissions from eight 30-inch snag grinders, 2 swing grinders, and 2 cut-off saws are partially controlled by a baghouse. Particulate emissions from 1 swing grinder, 1 cut-off saw, and hand-held grinders and chippers are not controlled.	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: Tumblast #1 (P014)

Activity Description: Rough cleaning of castings using steel shot in a shot blasting machine.

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
Rough cleaning of castings using steel shot in a shot blasting machine. Particulate emissions are partially controlled by a baghouse.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)(2)	Less stringent than the limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.
	OAC rule 3745-31-05(A)(3) PTI 02-12255	Particulate emissions (PE) from the baghouse stack shall not exceed 0.01 gr/dscf of exhaust gases, 0.39 pound per hour and 1.7 tons per year. Fugitive particulate emissions shall not exceed 3.0 tons per year. Visible particulate emissions of fugitive dust shall not exceed 20 percent opacity, as a three-minute average.

2. Additional Terms and Conditions

None

II. Operational Restrictions

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

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse once per day.

2. The permittee shall collect and record each day the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions of fugitive dust and for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate 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 particulate emissions incident; and
e. any corrective actions taken to eliminate the visible particulate emission.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions of fugitive dust or visible particulate emissions from the stack were observed from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to 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.

V. Testing Requirements

1. Compliance with the visible particulate emission limitation for the baghouse stack shall be determined by using Method 9 of 40 CFR, Part 60, Appendix A.

2. Compliance with the visible particulate emissions of fugitive dust limitation shall be determined by the method specified in Method 9 of 40 CFR, Part 60, Appendix A, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

3. Emission Limitations for PE : 0.010 gr/dscf and 0.39 pound per hour from the baghouse stack

Applicable Compliance Method: Compliance shall be determined by using U.S. EPA Method 5 of 40 CFR, Part 60, Appendix A.

To determine compliance with the hourly limitation of 0.39 pound per hour, multiply the grain loading (gr/dscf) at the exhaust of the baghouse by the gas flow rate from this emissions unit (dscfm) and by 60 (minutes/hr) and divide by 7,000 grains per pound.

V. Testing Requirements (continued)

4. Compliance with the fugitive PE limitation of 3.0 tons/yr shall be determined in accordance with the following equation:

E = Ti x 17.0 (lbs of PE/ton of iron) x (1 - .995) x 1/2000 (ton/pounds)

where

E = tons of PE per year

Ti = maximum amount of iron processed per year (8 tons per hour x 8,760 hours per year)

17 lbs of PE/ton of iron is the emission factor from AP-42, Table 12.10-7 (1/95 update), for cleaning and/or finishing of castings.

0.995 (99.5%) is the estimate of the collection efficiency of the air pollution capture hoods.

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

i. The emission testing shall be conducted within 3 months after issuance of this permit and within 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitations (i.e., 0.39 lb/hr and 0.01 gr/dscf). The permittee shall be deemed to be in compliance with the 0.39 lb/hr and 0.01 gr/dscf limitations for this emissions unit and the hourly and/or grain loading particulate emission limitations for the other emissions units (i.e., P011 and P019) vented to this baghouse only if the testing pursuant to this term and condition shows a particulate emission grain loading not exceeding 0.01 grain per dry standard cubic foot of exhaust gases.

iii. The following test methods shall be employed to demonstrate compliance with the particulate emission limitations: Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

iv. The test shall be conducted while emissions units P011, P014 and P019 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

5.b Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, 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 emission test shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test.

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
Rough cleaning of castings using steel shot in a shot blasting machine. Particulate emissions are partially controlled by a 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: Tumblast #2 (P019)

Activity Description: Rough cleaning of castings using steel shot in a shot blasting machine.

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
Rough cleaning of castings using steel shot in a shot blasting machine. Particulate emissions are partially controlled by a baghouse.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)(2)	Particulate emissions (PE) from the baghouse stack shall not exceed 16.8 pounds per hour. To ensure compliance with the 16.8 pounds per hour limitation, the permittee shall not exceed a particulate emission rate of 0.01gr/dscf for the baghouse exhaust gases. See A.2.a and A.V.3.a.ii.
	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.

2. Additional Terms and Conditions

2.a The particulate emission limitation for this emissions unit was determined by applying Figure II of OAC rule 3745-17-11. Since the uncontrolled mass rate of emission for this unit has not been measured, the uncontrolled particulate emissions were estimated to be 136 pounds per hour by using an AP-42 emission factor. This permit shall require the permittee to measure the uncontrolled mass rate of emission.

II. Operational Restrictions

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

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse once per day.

2. The permittee shall collect and record each day the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

V. Testing Requirements

1. Compliance with the visible particulate emission limitation shall be determined by using Method 9 of 40 CFR, Part 60, Appendix A.

2. Compliance with the particulate emission limitation of 16.8 pounds per hour shall be determined in accordance with the method specified in OAC rule 3745-17-03(B)(10).

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

i. The emission testing shall be conducted within 3 months after issuance of the permit and within 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitation of 16.8 lbs/hr. The permittee shall be deemed to be in compliance with the 16.8 lbs/hr limitation for this emissions unit and the hourly and/or grain loading particulate emission limitations for the other emissions units (i.e., P011 and P014) vented to this baghouse only if the testing pursuant to this term and condition shows a particulate emission grain loading not exceeding 0.01 grain per dry standard cubic foot of exhaust gases.

iii. The following test methods shall be employed to demonstrate compliance with the particulate emission limitation: Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

iv. The test shall be conducted while emissions units P011, P014 and P019 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

A particulate emission test also shall be conducted at the inlet of the control device to determine the uncontrolled mass rate of emission for emissions unit P019, for purposes of applying Figure II of OAC Rule 3745-17-11. For this testing, Method 5 of 40 CFR, Part 60, Appendix A shall be employed.

3.b Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, 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 emission tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA Northeast District Office within 30 days following completion of the tests.

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
Rough cleaning of castings using steel shot in a shot blasting machine. Particulate emissions are partially controlled by a 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: Laempe I (L-20) Coremaking Machine (P020)

Activity Description: Cold box coremaking using a binder and co-reactantsystem. Used to make the hollow part in castings (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
Making of sand cores with an L-20 size Laempe core machine. Particulate emissions are partially controlled by a wet scrubber.	OAC rule 3745-17-11(B)(2)	Less stringent than the limitation established pursuant to OAC rule 3745-31-05. See A.I.2.a.
	OAC rule 3745-17-07(A)(1)	In accordance with OAC rule 3745-17-07(A)(3)(h), the requirements of OAC rule 3745-17-07(A)(1) shall not apply to this emissions unit.
	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.
	OAC rule 3745-21-07(G)(2)	See A.I.2.b.
	OAC rule 3745-31-05(A)(3) PTI 02-8471	Emissions of methyl formate shall not exceed 4.2 pounds per hour. Particulate emissions shall not exceed 0.05 pound per hour.

2. Additional Terms and Conditions

2.a In accordance with OAC rule 3745-17-11(A)(2)(a)(ii), "Figure II" of OAC rule 3745-17-11 shall not apply to this emissions unit because the uncontrolled particulate emissions are less than 10 pounds per hour. In accordance with OAC rule 3745-17-11(A)(2)(b)(ii), "Table I" of OAC rule 3745-17-11 shall not apply to this emissions unit because it is located in Wayne County.

2.b The resins and other liquid organic materials used in this emissions unit shall not contain any photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

1. Particulate emissions from the day bin and the core machine shall be controlled by the scrubber at all times.

2. The pressure drop across the scrubber shall be continuously maintained at a value of not less than two inches of water column at all times while the emissions unit is in operation.

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

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep the following daily records for all materials used in this emissions unit:

a. An identification of each chemical compound in each organic material and its physical state.

b. For any liquid organic materials, documentation as to whether or not the material is a photochemically reactive material as defined in OAC rule 3745-21-01(C)(5).

2. The permittee shall maintain daily records that document any time periods when the scrubber was not in service when the emissions unit was in operation.

3. The permittee shall keep the following records each day this emissions unit operates:

a. The company identification of the the organic materials used.

b. The amount of organic materials, curing agent and sand employed, in pounds.

c. The number of hours of operation.

d. An estimate of the daily methyl formate emission rate, in pounds, using an emission factor of 4.2 lbs of methyl formate per ton of sand.

g. An estimate of the average hourly methyl formate emission rate, i.e., d/c.

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

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

a. The pressure drop across the scrubber, in inches of water.

b. The scrubber water flow rate, in gallons per minute.

c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day during which any photochemically reactive materials were employed.

2. The permittee shall submit deviation (excursion) reports that identify each daily record showing that the scrubber was not in service when the emissions unit was in operation.

3. The permittee shall submit deviation (excursion) reports that identify each day during which the average hourly methyl formate emissions exceeded 4.2 pounds per hour, and the actual average hourly methyl formate emissions for each such day.

IV. Reporting Requirements (continued)

4. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. The static pressure drop across the scrubber.

b. The scrubber water flow rate.

V. Testing Requirements

1. Compliance with the particulate emission limitation of 0.05 lb/hr shall be determined in accordance with the following equation or, if required, by testing using Method 5 of 40 CFR, Part 60, Appendix A:

E = Ts x (0.27 lb of PE/ton of sand x 0.35 lb of PE/ton of sand) x (1 - .98)

where

E = lbs of particulate emissions per hour

Ts = maximum amount of sand processed per hour (1.02 tons)

0.27 lb PE/ton sand is the emission factor from AP-42, Table 11.12-2, for pneumatic loading to storage silo.

0.98 (98%) is the estimated fractional control efficiency for the scrubber.

0.35 lb of PE/ton of sand is an emission factor from the Ohio EPA's RACM document, Table 2.8-1, for core making.

2. Compliance with the methyl formate emission limit of 4.2 lbs/hr shall be determined by using the information recorded in accordance with Section A.III.3 of these terms and conditions.

To determine the actual daily emission rate for methyl formate, the following equation shall be used:

Ed = sand usage rate (in tons per day) X 4.2

where

Ed = methyl formate emission rate (lbs/day)

4.2 = emission factor (lbs of methyl formate per ton of sand) for an ester-cured phenolic urethane cold box binder system (based on information provided by the resin manufacturer) .

3. The testing requirements for demonstrating compliance with the particulate emission limitation for this emissions unit are specified in Sections A.V.3.a and A.V.3.b of the terms and conditions for emissions unit F007 and in Sections A.V.6.a and A.V.6.b of the terms and conditions for emissions unit F008.

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
Making of sand cores with an L-20 size Laempe core machine. Particulate emissions are partially controlled by a wet scrubber.	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: Bicor Coremaking Machine (P021)

Activity Description: Automatic core machine using a binder an co-reactant system. Used to make the hollow part in castings (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
Making of sand cores with a Bicor core machine. Particulate emissions are partially controlled by a wet scrubber.	OAC rule 3745-17-11(B)(2)	Less stringent than the limitation established pursuant to OAC rule 3745-31-05. See A.I.2.a.
	OAC rule 3745-17-07(A)(1)	In accordance with OAC rule 3745-17-07(A)(3)(h), the requirements of OAC rule 3745-17-07(A)(1) shall not apply to this emissions unit.
	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.
	OAC rule 3745-21-07(G)(2)	See A.I.2.b.
	OAC rule 3745-31-05(A)(3) PTI 02-8471	Emissions of methyl formate shall not exceed 6.3 pounds per hour.

2. Additional Terms and Conditions

2.a In accordance with OAC rule 3745-17-11(A)(2)(a)(ii), "Figure II" of OAC rule 3745-17-11 shall not apply to this emissions unit because the uncontrolled particulate emissions are less than 10 pounds per hour. In accordance with OAC rule 3745-17-11(A)(2)(b)(ii), "Table I" of OAC rule 3745-17-11 shall not apply to this emissions unit because it is located in Wayne County.

2.b The resins and other liquid organic materials used in this emissions unit shall not be photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep the following daily records for all materials used in this emissions unit:

a. An identification of each chemical compound in each organic material and its physical state.

b. For any liquid organic materials, documentation as to whether or not the material is a photochemically reactive material as defined in OAC rule 3745-21-01(C)(5).

2. The permittee shall keep the following records each day this emissions unit operates:

a. The company identification of the the organic materials used.

b. The amount of organic materials, curing agent and sand employed, in pounds.

c. The number of hours of operation.

d. An estimate of the daily methyl formate emission rate, in pounds, using an emission factor of 4.2 lbs of methyl formate per ton of sand.

g. An estimate of the average hourly methyl formate emission rate, i.e., d/c.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify each day during which any photochemically reactive materials were employed.

2. The permittee shall submit deviation (excursion) reports that identify each day during which the average hourly methyl formate emissions exceeded 6.3 pounds per hour, and the actual average hourly methyl formate emissions for each such day.

V. Testing Requirements

1. Compliance with the methyl formate emission limit of 6.3 lbs/hr shall be determined by using the information recorded in accordance with Section A.III.2 of these terms and conditions.

To determine the actual daily emission rate for methyl formate, the following equation shall be used:

Ed = sand usage rate (in tons per day) X 4.2

where

Ed = methyl formate emission rate (lbs/day)

4.2 = emission factor (lbs of methyl formate per ton of sand) for an ester-cured phenolic urethane cold box binder system (based on information provided by the resin manufacturer) .

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
Making of sand cores with a Bicor core machine. Particulate emissions are partially controlled by a wet scrubber.	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: Laempe I (L-5) (P023)

Activity Description: Cold box coremaking using a two-part binder and catalyst system. Used to make the hollow part in castings (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
Resin-based core-mixing and core-making operation (phenolic urethane cold box) controlled by an acid scrubber. Particulate emissions from the day bin are partially controlled by a Schneible wet scrubber.	OAC rule 3745-21-07(G)(9)(h)	See A.I.2.a and b.
	OAC rule 3745-17-07(A)(1)	In accordance with OAC rule 3745-17-07(A)(3)(h), the requirements of OAC rule 3745-17-07(A)(1) shall not apply to this emissions unit.
	OAC rule 3745-17-11(B)(2)	Less stringent than the limitation established pursuant to OAC rule 3745-31-05. See A.I.2.a and A.I.2.c.
	OAC rule 3745-31-05(A)(3) PTI 02-8810	VOC emissions shall not exceed 9.1 pounds per hour. Particulate emissions shall not exceed 0.052 pound per hour.
	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.

2. Additional Terms and Conditions

2.a The provisions of OAC rule 3745-21-07(G) shall not apply to this emissions unit, provided that the catalyst gas emissions are vented to a sulfuric acid scrubber that is designed and operated to remove at least 98% by weight of the catalyst gas emissions.

2. Additional Terms and Conditions (continued)

2.b Although OAC rule 3745-21-07(G)(9)(h) specifies an exemption for the use of a phenolic urethane cold box resin binder system in foundry core-making and mold-making operations, the exemption is not yet part of the federally approved SIP. This new exemption was promulgated by Ohio EPA and became effective on June 15, 1999. Ohio EPA has received confirmation from USEPA concerning the acceptability of this exemption, and the permittee has agreed to consider the exemption as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of the exemption as a revision to the Ohio SIP for ozone.

2.c In accordance with OAC rule 3745-17-11(A)(2)(a)(ii), "Figure II" of OAC rule 3745-17-11 shall not apply to this emissions unit because the uncontrolled particulate matter emissions are less than 10 pounds per hour. In accordance with OAC rule 3745-17-11(A)(2)(b)(ii), "Table I" of OAC rule 3745-17-11 shall not apply to this emissions unit because it is located in Wayne County.

II. Operational Restrictions

1. The pressure drop across the scrubber shall be continuously maintained at a value of not less than two inches of water column at all times while the emissions unit is in operation.

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

III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #02-8810, issued on January 25, 1995: A.III.2. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

2. The permittee shall keep the following records each day this emissions unit operates:

a. The company identification of the liquid organic materials used.

b. The amount of liquid organic materials and sand mixed, in pounds.

c. The number of hours of operation.

d. An estimate of the daily organic compound emission rate, in pounds, using an emission factor of 0.65 lb of OC per ton of sand.

e. An estimate of the average hourly organic compound emission rate, i.e., d/c.

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

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

a. The pressure drop across the scrubber, in inches of water.

b. The scrubber water flow rate, in gallons per minute.

c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

IV. Reporting Requirements

1. Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #02-8810, issued on January 25, 1995: A.IV.2 . The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

2. The permittee shall submit deviation (excursion) reports that include an identification of each day during which the average hourly VOC emissions exceeded 9.1 pounds per hour, and the actual average hourly VOC emissions for each such day.

3. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following parameters for the Schneible wet scrubber were not maintained at or above the required levels:

a. The static pressure drop across the scrubber.

b. The scrubber water flow rate.

V. Testing Requirements

1. Compliance with the particulate emission limitation of 0.052 lb/hr shall be determined in accordance with the following equation or, if required, by testing using Method 5 of 40 CFR, Part 60, Appendix A:

E = Ts x (0.27 lb of PE/ton of sand + 0.35 lb PE/ton sand) x (1 - .98)

where

E = lbs of particulate emissions per hour

Ts = maximum amount of sand processed per hour (tons)

0.27 lb of PE/ton of sand is the emission factor from AP-42, Table 11.12-2 (1/95 update), for pneumatic loading to storage silo.

0.35 lb of PE/ton of sand is an emission factor from the Ohio EPA's RACM document, Table 2.8-1, for core making.

0.98 (98%) is the estimated fractional control efficiency for the scrubber.

2. Compliance with the VOC emission limitation of 9.1 pounds per hour shall be determined by using the information recorded in accordance with Section A.III.2 and the following equation or, if required, by testing using Method 25 of 40 CFR, Part 60, Appendix A:

To determine the actual daily VOC emission rate, the following equation shall be used:

Ed = sand usage rate (in tons per day) x 0.65 lb of VOC/ton of sand

where

Ed = VOC emission rate (lbs/day)

0.65 = emission factor (lbs of VOC per ton of sand) for phenolic urethane cold box binder system (based on OCMA study).

3. The testing requirements for demonstrating compliance with the particulate emission limitation for this emissions unit are specified in Sections A.V.3.a and A.V.3.b of the terms and conditions for emissions unit F007 and in Sections A.V.6.a and A.V.6.b of the terms and conditions for emissions unit F008.

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
Resin-based core-mixing and core-making operation (phenolic urethane cold box) controlled by an acid scrubber. Particulate emissions from the day bin are partially controlled by a Schneible wet scrubber.	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: Laempe II (L-20) Coremaking Machine (P025)

Activity Description: Cold box coremaking using a binder and co-reactant system. Used to make the hollow part in castings (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
Making of sand cores with an L-20 size Laempe core machine. Particulate emissions are partially controlled by a wet scrubber.	OAC rule 3745-17-11(B)(2)	Less stringent than the limitation established pursuant to OAC rule 3745-31-05. See A.I.2.a.
	OAC rule 3745-17-07(A)(1)	In accordance with OAC rule 3745-17-07(A)(3)(h), the requirements of OAC rule 3745-17-07(A)(1) shall not apply to this emissions unit.
	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.
	OAC rule 3745-21-07(G)(2)	See A.I.2.b.
	OAC rule 3745-31-05(A)(3) PTI 02-8470	Emissions of methyl formate shall not exceed 4.2 pounds per hour. Particulate emissions shall not exceed 0.05 pound per hour.

2. Additional Terms and Conditions

2.a In accordance with OAC rule 3745-17-11(A)(2)(a)(ii), "Figure II" of OAC rule 3745-17-11 shall not apply to this emissions unit because the uncontrolled particulate matter emissions are less than 10 pounds per hour. In accordance with OAC rule 3745-17-11(A)(2)(b)(ii), "Table I" of OAC rule 3745-17-11 shall not apply to this emissions unit because it is located in Wayne County.

2.b The resins and other liquid organic materials used in this emissions unit shall not contain any photochemically reactive materials, as defined in OAC rule 3745-21-01.

II. Operational Restrictions

1. Particulate emissions from the day bin and the core machine shall be controlled by the scrubber at all times.

2. The pressure drop across the scrubber shall be continuously maintained at a value of not less than two inches of water column at all times while the emissions unit is in operation.

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

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep the following daily records for all materials used in this emissions unit:

a. An identification of each chemical compound in each organic material and its physical state.

b. For any liquid organic materials, documentation as to whether or not the material is a photochemically reactive material as defined in OAC rule 3745-21-01(C)(5).

2. The permittee shall maintain daily records that document any time periods when the scrubber was not in service when the emissions unit was in operation.

3. The permittee shall keep the following records each day this emissions unit operates:

a. The company identification of the the organic materials used.

b. The amount of organic materials, curing agent and sand employed, in pounds.

c. The number of hours of operation.

d. An estimate of the daily methyl formate emission rate, in pounds, using an emission factor of 4.2 lbs of methyl formate per ton of sand.

g. An estimate of the average hourly methyl formate emission rate, i.e., d/c.

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

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

a. The pressure drop across the scrubber, in inches of water.

b. The scrubber water flow rate, in gallons per minute.

c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day during which any photochemically reactive materials were employed.

2. The permittee shall submit deviation (excursion) reports that identify each daily record showing that the scrubber was not in service when the emissions unit was in operation.

3. The permittee shall submit deviation (excursion) reports that identify each day during which the average hourly methyl formate emissions exceeded 4.2 pounds per hour, and the actual average hourly methyl formate emissions for each such day.

IV. Reporting Requirements (continued)

4. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. The static pressure drop across the scrubber.

b. The scrubber water flow rate.

V. Testing Requirements

1. Compliance with the particulate emission limitation of 0.05 lb/hr shall be determined in accordance with the following equation or, if required, by testing using Method 5 of 40 CFR, Part 60, Appendix A:

E = Ts x (0.27 lb of PE/ton of sand x 0.35 lb of PE/ton of sand) x (1 - .98)

E = lbs of particulate emissions per hour

Ts = maximum amount of sand processed per hour (1.02 tons)

0.27 lb PE/ton sand is the emission factor from AP-42, Table 11.12-2, for pneumatic loading to storage silo.

0.35 lb of PE/ton of sand is an emission factor from the Ohio EPA's RACM document, Table 2.8-1, for core making.

0.98 (98%) is the estimated fractional control efficiency for the scrubber.

2. Compliance with the methyl formate emission limit of 4.2 lbs/hr shall be determined by using the information recorded in accordance with Section A.III.3 of these terms and conditions and the following equation.

To determine the actual daily emission rate for methyl formate, the following equation shall be used:

Ed = sand usage rate (in tons per day) X 4.2

where

Ed = methyl formate emission rate (lbs/day)

4.2 = emission factor (lbs of methyl formate per ton of sand) for an ester-cured phenolic urethane cold box binder system (based on information provided by the resin manufacturer).

3. The testing requirements for demonstrating compliance with the particulate emission limitation for this emissions unit are specified in Sections A.V.3.a and A.V.3.b of the terms and conditions for emissions unit F007 and in Sections A.V.6.a and A.V.6.b of the terms and conditions for emissions unit F008.

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
Making of sand cores with an L-20 size Laempe core machine. Particulate emissions are partially controlled by a wet scrubber.	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: Hunter HMP-20 Pouring and Cooling (P026)

Activity Description: Pouring of molten metal into green sand molds with subsequent 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
pouring and cooling area for molds made on the Hunter HMP-20 molding machines. (Particulate emissions from pouring and cooling areas are partially controlled by a baghouse.)	OAC rule 3745-17-11(B)(2)	The limitation from this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-17-07(A)(1)	The limitation from this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.
	OAC rule 3745-31-05(A)(3) PTI 02-9055	Particulate emissions from the baghouse stack shall not exceed 2.72 pounds per hour and 0.006 gr/dscf of exhaust gases. Fugitive particulate emissions shall not exceed 1.78 tons per year. VOC emissions shall not exceed 0.84 pound per hour. See A.2.a.
	OAC rule 3745-18-06	Sulfur dioxide (SO2) emissions shall not exceed 367 lbs/hr; see A.III.1.

2. Additional Terms and Conditions

2.a The opacity of the particulate emissions from the baghouse exhaust stack shall not exceed the value established during the most recent stack test that showed compliance with the particulate emission limitation. This opacity value shall be established in accordance with Engineering Guide #13. During the last compliance test on April 19, 1996, the opacity was 0%.

II. Operational Restrictions

1. The maximum annual production rate for this emissions unit shall not exceed 21,120 tons of iron poured, based upon a rolling, 12-month summation of the monthly production rates.

2. The pressure drop across the baghouse shall be maintained within the range of 2 to 7 inches of water column while the emissions unit is in operation.

3. The collection efficiency of the air pollution capture hoods for this emissions unit shall be maintained in accordance with good engineering practice so as not to increase the amount of fugitive particulate emissions.

4. The maximum annual operating hours for this emissions unit shall not exceed 4,400, based upon a rolling, 12-month summation of the monthly production rates.

III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #02-9055, issued on August 2, 1995 and administratively modified on December 29,1999: A.III.3. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

2. No record keeping and monitoring is required for the SO2 emissions limitation because the maximum uncontrolled emission rate of SO2 cannot exceed the limitation.

3. The permittee shall maintain monthly records which list the following information:

a. the tons of iron poured;

b. the rolling, 12-month summation of the monthly iron pour rates;

c. the operating hours of the emissions unit for each month; and

d.the rolling, 12-month summation of the operating hours.

4. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a continuous basis.

5. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions of fugitive dust and for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate 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 particulate emission incident; and
e. any corrective actions taken to eliminate the visible particulate emissions.

6. The permittee shall collect and record each day the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

IV. Reporting Requirements

1. Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #02-9055, issued on August 2, 1995 and administratively modified on December 29, 1999: A.IV.2 and A.IV.3. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month iron pour rate limitation. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency no later than 45 days from the end of the month in which the exceedance occurred.

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation. These reports are due by the dates described in Part 1 - General Terms and Conditions of this permit under section (A)(1).

4. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

5. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions of fugitive dust or visible particulate emissions from the stack were observed from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to 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.

V. Testing Requirements

1. Compliance with the visible particulate emission limitation for the baghouse stack shall be determined by using Method 9 of 40 CFR, Part 60, Appendix A.

2. Compliance with the stack particulate emission limitations of 2.72 pounds per hour and 0.006 gr/dscf of exhaust gases shall be determined in accordance with OAC rule 3745-17-03(B)(10).

The hourly limitation of 2.72 pounds per hour is based on a grain loading limitation of 0.006 gr/dscf and the anticipated gas flow rate from emissions unit P026 to the baghouse of 53,000 scfm.

3. Compliance with the fugitive particulate emission limitation of 1.78 tons per year shall be determined in accordance with the following equation:

E = 21,120 tons of iron/year x [(2.8 lb of PE/ton of iron x .05) + (1.4 lb of PE/ton of iron x .02)] x 1 ton/2000 pounds

where

E = tons of particulate emissions per year

21,120 is the maximum iron pour rate for this unit.

2.8 lbs of PE/ton of iron is the emission factor for pouring from AP-42, Table 12.10-7 (1995 update).

0.05 is the decimal fraction of particulate emissions not captured.

1.4 lbs of PE/ton of iron is the emission factor for cooling from AP-42, Table 12.10-7 (1995 update)

0.02 is the decimal fraction of particulate emissions from the cooling areas that are not captured.

Compliance with the scrubber stack particulate emission limitations of 1.43 pounds per hour and 0.015 gr/dscf of exhaust gases shall be determined in accordance with the method specified in OAC rule 3745-17-03(B)(10).

The hourly limitation of 1.43 pounds per hour is based on a grain loading limitation of 0.015 gr/dscf and the anticipated gas flow rate from emissions unit P026 to the baghouse of 11,125 scfm.

V. Testing Requirements (continued)

4. Compliance with the VOC emission limitation of 0.84 pound per hour shall be determined in accordance with the following equation:

E = 6 tons of iron/hour x 0.14 lb of VOC/ton of iron

where

E = pounds of VOC emitted per hour

6 tons of iron/hour is maximum iron pour rate

0.14 lb of VOC/ton of iron is an emission factor in lb of VOC per ton of iron produced for pouring and cooling from SCC emission factors (30400320), U.S. EPA Source Classification Codes, 1997-98 update.

5. Compliance with the SO2 emission limitation of 367 pounds per hour shall be determined in accordance with the following equation:

E = 6 tons of iron/hour x 0.02 lb of SO2/ton of iron

where

E = pounds of SO2 emitted per hour

6 tons of iron/hour is the maximum iron pour rate.

0.02 lb of SO2/ton of iron is an emission factor in lb of SO2 per ton of iron produced for pouring and cooling from SCC emission factors (30400320), U.S. EPA Source Classification Codes, 1997-98 update.

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

i. The emission testing shall be conducted within 3 months after issuance of this permit and within 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitations (i.e., 2.72 lbs/hr and 0.006 gr/dscf). The permittee shall be deemed to be in compliance with the 2.72 lbs/hr and 0.006 gr/dscf limitations for this emissions unit and the hourly and/or grain loading particulate emission limitations for the other emissions units (i.e., F003, F006, F008, F018, F019, F029, P026, and P027) vented to this baghouse only if the testing pursuant to this term and condition shows a particulate emission grain loading not exceeding 0.006 grain per dry standard cubic foot of exhaust gases.

iii. The following test method shall be employed to demonstrate compliance with the particulate emission limitations: Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

iv. The test shall be conducted while emissions units F003, F006, F008, F018, F019, F029, F031, P026 and P027 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

V. Testing Requirements (continued)

6.b Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, 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 shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

7. Compliance with the production rate limitation of 21,120 tons of iron poured for any 12-month period shall be based on the record keeping performed pursuant to Section A.III.3 of this permit.

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
pouring and cooling area for molds made on the Hunter HMP-20 molding machines. (Particulate emissions from pouring and cooling areas are partially controlled by a 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: Hunter Didion Shakeout (P027)

Activity Description: Sand and metal separation using a rotating shakeout drum after the Hunter HMP-10 & HMP-20 pouring and cooling lines.

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
Didion drum shakeout for castings made on HMP-10 and HMP-20 lines (Particulate emissions are partially controlled by a baghouse.)	OAC rule 3745-17-11(B)(2)	The limitation from this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-17-07(A)(1)	The limitation from this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-17-08(B)	In accordance with OAC rule 3745-17-08(A)(1), the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)(1)	In accordance with OAC rule 3745-17-07(B)(11)(e), the requirements of OAC rule 3745-17-07(B)(1) shall not apply to this emissions unit.
	OAC rule 3745-31-05(A)(3) PTI 02-9055	Particulate emissions (PE) from the baghouse stack shall not exceed 0.231 pound per hour and 0.006 gr/dscf of exhaust gases. Fugitive particulate emissions shall not exceed 1.34 tons per year. Volatile organic compound (VOC) emissions shall not exceed 9.36 pounds per hour. See A.2.a.

2. Additional Terms and Conditions

2.a The opacity of particulate emissions from the baghouse exhaust stack shall not exceed the value established during the most recent stack test that showed compliance with the particulate emission limitation. This opacity value shall be established in accordance with Engineering Guide #13. During the last compliance test on April 19,1996, the opacity was 0%.

II. Operational Restrictions

1. The maximum annual production rate for this emissions unit shall not exceed 34,320 tons of iron processed through the shakeout drum, based upon a rolling,12-month summation of the monthly production rates.

2. The pressure drop across the baghouse shall be maintained within the range of 2 to 7 inches of water column while the emissions unit is in operation.

3. The collection efficiency of the air pollution capture hoods for this emissions unit shall be maintained in accordance with good engineering practice so as not to increase the amount of fugitive particulate emissions.

4. The maximum annual operating hours for this emissions unit shall not exceed 4,400, based upon a rolling, 12-month summation of the monthly production rates.

III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #02-9055, issued on August 2, 1995 and administratively modified on December 29,1999: A.III.2. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

2. The permittee shall maintain monthly records that list the following information:

a. the tons of iron processed through the shakeout drum;

b. the rolling, 12-month summation of the monthly amount of iron processed through the shakeout drum;

c. the operating hours of the emissions unit; and

d. the rolling, 12-month summation of the operating hours.

3. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a continuous basis.

4. The permittee shall collect and record each day the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

5. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions of fugitive dust and for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate 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 particulate emissions incident; and
e. any corrective actions taken to eliminate the visible particulate emission.

IV. Reporting Requirements

1. Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #02-9055, issued on August 2, 1995 and administratively modified on December 29, 1999: A.IV.2 and A.IV.3. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

IV. Reporting Requirements (continued)

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month iron throughput limitation.

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.

4. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

5. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions of fugitive dust or visible particulate emissions from the stack were observed from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to 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.

V. Testing Requirements

1. Compliance with the visible particulate emission limitation for the baghouse stack shall be determined by using Method 9 of 40 CFR, Part 60, Appendix A.

2. Compliance with the baghouse stack particulate emission limitations of 0.231 pound per hour and 0.006 gr/dscf of exhaust gases shall be determined in accordance with the method specified in OAC rule 3745-17-03(B)(10).

The hourly limitation of 0.231 pound per hour is based on a grain loading limitation of 0.006 gr/dscf and the anticipated gas flow rate from emissions unit P027 to the baghouse of 4,500 scfm.

3. Compliance with the fugitive particulate emission limitation of 1.34 tons per year shall be determined in accordance with the following equation:

E = Ti x 3.2 lbs of PE/ton of iron x .02 x 1 ton/2000 pounds

where

E = tons of particulate emissions per year

Ti = iron throughput rate for this unit, in tons per year

3.2 lbs of PE/ton of iron is the emission factor for a shakeout from AP-42, Table 12.10-7 (1995 update).

0.02 is the decimal fraction of particulate emission not captured.

4. Compliance with the VOC emission limitation of 9.36 pounds per hour shall be determined in accordance with the following equation:

E = 7.8 tons of iron/hour x 1.2 lbs of VOC/ton of iron

where

E = pounds of VOC emission per hour

7.8 tons of iron/hour is the maximum iron throughput for the shakeout.

1.2 lbs of VOC/ton of iron is an emission factor in lbs of VOC per ton of iron processed through the shakeout drum from SCC emission factors (30400331), U.S. EPA Source Classification Codes, 1997-98 update.

V. Testing Requirements (continued)

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

i. The emission testing shall be conducted within 3 months after issuance of this permit and within 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitations (i.e., 0.231 lb/hr and 0.006 gr/dscf). The permittee shall be deemed to be in compliance with the 0.231 lb/hr and 0.006 gr/dscf limitations for this emissions unit and the hourly and/or grain loading particulate emission limitations for the other emissions units (i.e., F003, F006, F008, F018, F019, F029, F031 and P026) vented to this baghouse only if the testing pursuant to this term and condition shows a particulate emission grain loading not exceeding 0.006 grain per dry standard cubic foot of exhaust gases.

iii. The following test methods shall be employed to demonstrate compliance with the particulate emission limitations: Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

iv. The test shall be conducted while emissions units F003, F006, F008, F018, F019, F029, F031, P026 and P027 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

6.b Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, 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 emission test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

7. Compliance with the production rate limitation of 34,320 tons of iron processed for any 12-month period shall be based on the record keeping performed pursuant to Section A.III.2 of this permit.

8. Compliance with the operating hours limitation of 4,400 hours for any 12-month period shall be based on the record keeping performed pursuant to Section A.III.2.

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
Didion drum shakeout for castings made on HMP-10 and HMP-20 lines (Particulate emissions are partially controlled by a 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: FlowCoat Operation (P028)

Activity Description: Washing of cores on benches.

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
foundry core wash operations	OAC rule 3745-21-07(G)(2)	See A.I.2.a.

2. Additional Terms and Conditions

2.a The permittee shall not employ any liquid organic material in this emissions unit that is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep the following records for all organic materials used in this emissions unit:

a. An identification of each chemical compound in each organic material and its physical state.

b. For any liquid organic material, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that include an identification of each day during which any photochemically reactive material was employed.

V. Testing Requirements

1. Compliance with the prohibition of the use of photochemically reactive materials in this emissions unit shall be determined by the record keeping performed pursuant to Section A.II.1 of this permit.

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
foundry core wash operations	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

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