



State of Ohio Environmental Protection Agency

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P.O. Box 1049
Columbus, OH 43216-1049

06/11/98

CERTIFIED MAIL

RE: Draft Title V Chapter 3745-77 permit

02-47-04-0014
Elyria Foundry
John Byrne
120 Filbert Street
Elyria, OH 44036

Dear John Byrne:

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,

A handwritten signature in black ink that reads "Thomas G. Rigo". The signature is written in a cursive, flowing style.

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



Ohio EPA

State of Ohio Environmental Protection Agency

TITLE V PERMIT

Issue Date: 06/11/98

DRAFT

Effective Date:

Expiration Date:

This document constitutes issuance to:

Elyria Foundry
120 Filbert Street
Elyria, OH 44036

of a Title V permit for Facility ID: 02-47-04-0014

Emissions Unit ID (Company ID)/

Emissions Unit Activity Description:

F001 (Furnace #1)

Electric melting of steel/iron to produce molten metal.

F002 (Furnace #2)

Electric melting of steel/iron to produce molten metal.

F003 (Furnace #3)

Electric melting of steel/iron to produce molten metal.

F004 (Furnace #4)

Electric melting of steel/iron to produce molten metal.

F005 (#1 Core Dept. Mixer- Castech)

Sand/binder mixing process.

F006 (#2 Core Dept. Mixer- C. E. Cast)

Sand/binder mixing process.

F007 (No. 3 Iron Inoculation)

Large ductile iron castings back-up.

F009 (CL Blow-off Station)

Air lancing to pneumatically discharge core from casting.

F010 (Casting Cooling)

Iron pouring and sand mold cooling equipment with baghouse.

F011 (Grinding/Cleaning)

Iron casting cleaning & finishing line.

F012 (Pouring #1)
Foundry #1 pouring.

F013 (Pouring #2)
Foundry #2 pouring.

F014 (Pouring #3)
Foundry #3 pouring.

F015 (#3 Core Dept. Mixer- Kloster)
Sand/binder mixing process.

F016 (#2 Core Dept. Mixer- Palmer)
Sand/binder mixing process.

F017 (#1 Core Dept. Mixer- Sand Master)
Sand/binder mixing process.

F018 (#1 Core Dept. Mixer- Palmer)
Sand/binder mixing process.

F019 (#6 (North) holding furnace - new foundry.)
Holding and pouring of molten metal.

F020 (#5 (South) holding furnace - new foundry.)
Holding and pouring of molten metal.

K002 (Paint Booth)
Application of coatings onto castings.

P004 (Shot Blast 6 ft.)
Surface cleaning of castings.

P005 (Shot Blast 8 ft.)
Shot blast cleaning of castings.

P006 (Vac-Blast)
Grit blasting cabinet.

P007 (Cut-off Saw)
Abrasive wheel cut-off for gates and risers from castings.

P008 (N. Plant Reclamation)
Pneumatic cleaning of castings and sand reclamation.

P010 (Scrap Dryer)
Drying of scrap iron and steel.

P017 (Meltshop Inoculation)
Ductile iron processing.

P023 (Shakeout #1)
Shakeout/separation of sand and castings.

P024 (Shakeout #2)
Shakeout/separation of sand and castings.

P025 (No. 3 Mullers)

Preparation of molding sand.

P026 (Shakeout #3)

Shakeout/separation of sand and castings.

P027 (MS Sand Reclaimer)

South plant mechanical reclaimer.

P028 (T Reclamation System)

South plant thermal reclaimer.

P029 (Core and mold wash operations)

Core/Mold wash operations.

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
(216) 425-9171

OHIO ENVIRONMENTAL PROTECTION AGENCY

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**

No term or condition specifying a method for demonstrating compliance with any emission limitation or other requirement of this permit shall preclude the use by any person of any credible evidence to establish compliance with or a violation of this permit, the Clean Air Act, or any implementing regulations or rules promulgated thereunder.

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

None

B. State Only Enforceable Section

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

P009-natural gas fired mold cure ovens
P011-heat treat furnace
P014-#1 core room sand silo
P015-#2 core room sand silo
P016-#3 core room sand silo
P019-core drying ovens
T001-resin storage tank

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: Furnace #1 (F001)

Activity Description: Electric melting of steel/iron to produce molten metal.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Electric induction furnace #1	OAC rule 3745-17-08(B)	See additional terms and conditions
	OAC rule 3745-17-07(B)	See additional terms and conditions

2. Additional Terms and Conditions

- 2.a In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) do not apply to this emissions unit.
- 2.b In accordance with paragraph (B)(7)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.

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 limitations, and the listed control measures shall be employed. Additional applicable emissions

Operations, Property,

Applicable Rules/

Limitations/Control

Additional Terms and Conditions

None

II.

None

III.

None

IV.

None

V.

None

VI.

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furnace #2 (F002)

Activity Description: Electric melting of steel/iron to produce molten metal.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Electric induction furnace #2	OAC rule 3745-17-08(B)	See additional terms and conditions
	OAC rule 3745-17-07(B)	See additional terms and conditions

2. Additional Terms and Conditions

- 2.a In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) do not apply to this emissions unit.
- 2.b In accordance with paragraph (B)(7)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II.

None

III.

None

IV.

None

V.

None

VI.

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furnace #3 (F003)

Activity Description: Electric melting of steel/iron to produce molten metal.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Electric induction furnace #3	OAC rule 3745-17-08(B)	See additional terms and conditions
	OAC rule 3745-17-07(B)	See additional terms and conditions

2. Additional Terms and Conditions

- 2.a In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) do not apply to this emissions unit.
- 2.b In accordance with paragraph (B)(7)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.

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.

Applicable Emissions

and/or Equipment

Requirements

Measures

2.

None

II. Operational Restrictions

III. Monitoring and/or Record Keeping Requirements

IV. Reporting Requirements

V. Testing Requirements

VI. Miscellaneous Requirements

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furnace #4 (F004)

Activity Description: Electric melting of steel/iron to produce molten metal.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Electric induction furnace #4	OAC rule 3745-17-08(B) OAC rule 3745-17-07(B)	See additional terms and conditions See additional terms and conditions

2. Additional Terms and Conditions

- 2.a In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) do not apply to this emissions unit.
- 2.b In accordance with paragraph (B)(7)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II.

None

III.

None

IV.

None

V.

None

VI.

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: #1 Core Dept. Mixer- Castech (F005)
Activity Description: Sand/binder mixing process.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Sand/binder mixer	OAC rule 3745-17-08(B)	See additional terms and conditions emissions of organic compounds shall not exceed 8 lbs/hr and 40 lbs/day
	OAC rule 3745-21-07(G)(2)	
	OAC rule 3745-17-07(B)	See additional terms and conditions

2. Additional Terms and Conditions

- 2.a In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) do not apply to this emissions unit.
- 2.b In accordance with paragraph (B)(7)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. 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 amounts (pounds) of liquid organic materials and sand mixed.
 - c. The number of hours of operation.
 - d. An estimate of the daily organic compound emission rate (pounds), using an emission factor of 1.17 lbs OC per ton of sand.
 - e. An estimate of the average hourly organic compound emission rate (pounds).

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include the following information:
 - a. An identification of each day during which the average hourly organic compound emissions exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day.
 - b. An identification of each day during which the organic compound emissions exceeded 40 pounds per day, and the actual organic compound emissions for each such day.

V. Testing Requirements

1. Emission Limitation:
40 lbs organic compounds per day

Applicable Compliance Method:

To determine the actual emission rate for organic compounds, the following equation shall be used:

$$E_d = \text{sand usage rate (in tons per day)} \times 1.17 \text{ lbs/ton sand}$$

where

$$E_d = \text{organic compound emission rate (lbs/day)}$$

1.17 = emission factor (lbs OC per ton of sand) for phenolic urethane no-bake binder system, from Ohio Cast Metal Association study

2. Emission Limitation:
8 lbs organic compounds per hour

Applicable Compliance Method:

To determine the actual average emission rate for organic compounds, the following equation shall be used:

$$E_h = E_d / H$$

where

$$E_h = \text{average organic compound emission rate (lbs/hr)}$$

E_d = daily organic compound emission rate, determined in A.V.1.

H = hours of operation each day

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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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: #2 Core Dept. Mixer- C. E. Cast (F006)
Activity Description: Sand/binder mixing process.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Sand/binder mixer	OAC rule 3745-17-08(B)	See additional terms and conditions emissions of organic compounds shall not exceed 8 lbs/hr and 40 lbs/day
	OAC rule 3745-21-07(G)(2)	
	OAC rule 3745-17-07(B)	See additional terms and conditions

2. Additional Terms and Conditions

- 2.a In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) do not apply to this emissions unit.
- 2.b In accordance with paragraph (B)(7)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. 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 amounts (pounds) of liquid organic materials and sand mixed.
 - c. The number of hours of operation.
 - d. An estimate of the daily organic compound emission rate (pounds), using an emission factor of 0.51 lb OC per ton of sand.
 - e. An estimate of the average hourly organic compound emission rate (pounds).

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include the following information:
 - a. An identification of each day during which the average hourly organic compound emissions exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day.

and the actual organic compound emissions for each such day.

Testing Requirements

1. Emission Limitation:

To determine the actual emission rate for organic compounds, the following equation shall be used:

$$E_d = \text{sand usage rate (in tons per day)} \times 0.51$$

where

$$E_d = \text{organic compound emission rate (lbs/day)}$$

0.51 = emission factor (lb organic compounds per ton of sand) for furan no-bake binder system (based on

2. Emission Limitation:

To determine the average actual emission rate for organic compounds, the following equation shall be used:

$$E_h = \text{average organic compound emission rate (lbs/hr)}$$

Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Sand/binder mixer	OAC rule 3745-31-05 PTI 02-10900 OAC rule 3745-31-05 PTI 02-10900	Emissions of particulate matter shall not exceed 1.7 lbs per hour Visible particulate emissions shall not exceed 20% opacity, on a three-minute average

- None**

II. Operational Restrictions

III. Monitoring and/or Record Keeping Requirements

IV. Reporting Requirements

V. Testing Requirements

- Compliance with the particulate matter emission limit of 1.7 lbs/hr shall be determined in accordance with the

$$E = T_i \times 1.1 \text{ lbs PM/ton iron}$$

where

T_i = tons of iron produced per hour

- Compliance with the visible emission limit shall be determined in accordance with OAC rule 3745-17-03(B)(3).

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: No. 3 Iron Inoculation (F007)
Activity Description: Large ductile iron castings back-up.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Large ductile iron castings station. PM emissions controlled by a fabric filter (baghouse #15)	OAC rule 3745-17-11(B)(1)	Emissions of particulate matter shall not exceed 5.85 lbs/hr
	OAC rule 3745-17-07(A)(1)	Visible particulate matter emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. Baghouse Operational Restrictions

The pressure drop across the baghouse shall be maintained within the range of 4 to 8.5 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. Baghouse Pressure Drop Monitoring and Recordkeeping Requirements

The permittee shall properly install, 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 daily basis.

IV. Reporting Requirements

1. Baghouse Pressure Drop Reporting Requirements

The permittee shall submit pressure drop deviation (excursion) reports that identify that 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 particulate matter emission limitation of 5.85 pounds per hour shall be determined in accordance with OAC Rule 3745-17-03(B)(10).

V. Testing Requirements (continued)

2. If required by the Ohio EPA, compliance with the visible emission limitation in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s): Method 9 of 40 CFR Part 60, Appendix A.

3.a. Emission testing requirements

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 6 months prior to permit renewal.
- ii. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate matter.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1-5 of 40 CFR Part 60, Appendix A.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

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 test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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 emissions test(s) 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 test(s).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Large ductile iron castings station. PM emissions controlled by a fabric filter (baghouse #15).	OAC rule 3745-31-05 PTI 02-5515	Emissions of particulate matter shall not exceed 0.01 grain per dry standard cubic foot of exhaust gases and 4.21 lbs/hr

2. Additional Terms and Conditions

None

II. Operational Restrictions

- The baghouse used to control particulate matter emissions from this emissions unit (baghouse #15) also controls particulate matter emissions from the #2 shakeout (P024). This emissions unit shall not operate at the same time that emissions unit P024 is in operation.

III. Monitoring and/or Record Keeping Requirements

- The permittee shall maintain daily records on the periods of time that this emissions unit is in operation.

IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify all periods of time that this emissions unit was in operation at the same time that emissions unit P024 (#2 shakeout) was in operation.

V. Testing Requirements

- Compliance with the particulate matter emission limitation of 0.01 grain per dry standard cubic foot of exhaust gases shall be determined in accordance with OAC Rule 3745-17-03(B)(10). Emissions testing in accordance with section A.V.3. of this permit shall be done to demonstrate compliance with this emissions limitation.
- Compliance with the particulate matter emission limitation of 4.21 pounds per hour shall be determined in accordance with OAC Rule 3745-17-03(B)(10). Emissions testing in accordance with section A.V.3. of this permit shall be done to demonstrate compliance with this emissions limitation.

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: CL Blow-off Station (F009)

Activity Description: Air lancing to pneumatically discharge core from casting.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Air lancing to pneumatically discharge sand from cores, PM emissions controlled by a fabric filter (baghouse #5)	OAC rule 3745-17-11(B)(1)	Emissions of particulate matter shall not exceed 18.7 lbs/hr
	OAC rule 3745-17-07(A)(1)	Visible particulate matter emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule

2. Additional Terms and Conditions

None

II. Operational Restrictions

- Baghouse Operational Restrictions

The pressure drop across the baghouse shall be maintained within the range of 4 to 8.5 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

- Baghouse Pressure Drop Monitoring and Recordkeeping Requirements

The permittee shall properly install, 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 daily basis.

IV. Reporting Requirements

- Baghouse Pressure Drop Reporting Requirements

The permittee shall submit pressure drop deviation (excursion) reports that identify that 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. If required by the Ohio EPA, compliance with the visible emission limitation in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s): Method 9 of 40 CFR Part 60, Appendix A.
2. Compliance with the particulate matter emission limitation of 18.7 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Air lancing to pneumatically discharge sand from castings, PM emissions controlled by a fabric filter (baghouse #5)	OAC rule 3745-31-05 PTI 02-5515	Emissions of particulate matter shall not exceed 0.01 grain per dry standard cubic foot of exhaust gases and 1.11 lbs/hr

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

- Compliance with the particulate matter emission limitation of 0.01 grain per dry standard cubic foot of exhaust gases shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A).
- Compliance with the particulate matter emission limitation of 1.11 pounds per hour shall be determined in accordance with OAC Rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC Rule 3745-15-04(A).

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Casting Cooling (F010)

Activity Description: Iron pouring and sand mold cooling equipment with baghouse.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Moldmaking, iron pouring and cooling, PM emissions controlled by a fabric filter (baghouse #11)	OAC rule 3745-31-05 PTI 02-8154	The emissions of particulate matter from the baghouse exhaust shall not exceed 0.01 grain per dry standard cubic foot of exhaust gases, 3.0 pounds per hour and 7.2 tons per rolling 12-month period.
	OAC rule 3745-31-05 PTI 02-8154	Visible particulate matter emissions shall not exceed 10% opacity as a 6-minute average
	OAC rule 3745-17-07(A)	Less stringent than BAT limit above
	OAC rule 3745-17-11	Less stringent than BAT limit above
Moldmaking	OAC rule 3745-21-07(G)(2)	See additional terms and conditions

2. Additional Terms and Conditions

- 2.a The emissions unit shall not employ organic liquids which are photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

- The maximum hourly production rate for this emissions unit shall not exceed 5.25 tons of iron poured.
- The maximum annual production rate for this emissions unit shall not exceed 21,000 tons of iron, based upon a rolling, 12-month summation of the production rates.
- The maximum annual operating hours for this emissions unit shall not exceed 4800, based upon a rolling, 12-month summation of the operating hours.
- Baghouse Operational Restrictions

The pressure drop across the baghouse shall be maintained within the range of 4-8 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The production rate for each month.
 - b. The rolling, 12-month summation of the production rates.
 - c. The operating hours for each month.
 - d. The rolling, 12-month summation of the operating hours.

2. Baghouse Pressure Drop Monitoring and Recordkeeping Requirements

The permittee shall properly install, 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 daily basis.

3. The permittee shall keep the following records on all materials used in this emissions unit:
 - a. The identification of the chemical compound and its physical state.
 - b. For any liquid organic materials, 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 identify:
 - a. All exceedances of the rolling, 12-month operating hours limitation.
 - b. All exceedances of the rolling, 12-month production rate limitation.
 - c. An identification of each day during which photochemically reactive materials were employed.
2. Baghouse Pressure Drop Reporting Requirements

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 emission limitation shall be determined in accordance with OAC rule 3745-17-03(B)(1).
2. Compliance with the particulate matter emission limitation of 0.01 gr/dscf and 3.0 pounds/hour shall be determined in accordance with OAC rule 3745-17-03(B)(10).
3. Compliance with the long term PM emissions limitation in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation: PM emissions limited to 7.2 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the stated PM emissions limitation shall be determined by calculations using a compilation of hours of operation of this emissions unit in each rolling 12-month period and the actual emission rate determined by stack testing.

V. Testing Requirements (continued)

4.a Emission testing requirements

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 by June 30, 1998 and by no later than 6 months prior to permit renewal.
- ii. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate matter.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1-5 of 40 CFR Part 60, Appendix A.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

4.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(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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 emissions test(s) 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 test(s).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Moldmaking, iron pouring and cooling, PM emissions controlled by a fabric filter (baghouse #11)	OAC rule 3745-31-05 PTI 02-8154	See II.2.

2. Additional Terms and Conditions

None

II. Operational Restrictions

- During the initial compliance test on February 17, 1995, the maximum hourly production rate achieved was 6400 pounds of iron poured. This represents 60% of the line's maximum capacity.

Therefore, the maximum casting production rate shall not exceed 6400 pounds (3.2 tons) per hour and 15,360 tons per rolling 12- month period, unless compliance is demonstrated at a higher production rate.
- 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. The collection efficiency shall be considered adequate if visible particulate emissions of fugitive dust do not exceed 20% opacity as a three-minute average.

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation listed in Section B.II.1.

V. Testing Requirements

- Compliance with the visible emission limitation shall be determined in accordance with OAC rule 3745-17-03(B)(3).

VI. Miscellaneous Requirements

- Prior to increasing hourly production rate from 3.2 tons per hour to 5.25 tons per hour, Elyria Foundry shall demonstrate compliance with the allowable emission rate for particulate matter. An intent to test notification form shall be sent to the Ohio EPA, Northeast District Office thirty days prior to the test date. This increase in production rate shall not cause an increase in the allowable emission rate for particulate matter.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Grinding/Cleaning (F011)

Activity Description: Iron casting cleaning & finishing 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Shakeout table, shotblast, surface grinders, sand handling equipment and sand preparation equipment, PM emissions controlled by a fabric filter (baghouse #9-10)	OAC rule 3745-31-05 PTI 02-8154	The emissions of particulate matter from the baghouse exhaust shall not exceed 0.01 grain per dry standard cubic foot of exhaust gases, 3.0 pounds per hour and 7.2 tons per rolling 12-month period.
	OAC rule 3745-31-05 PTI 02-8154	Visible particulate matter emissions shall not exceed 10% opacity as a 6-minute average
	OAC rule 3745-17-11	Less stringent than BAT limit.
	OAC rule 3745-17-07(A)	Less stringent than BAT limit

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The maximum annual operating hours for this emissions unit shall not exceed 4800, based upon a rolling, 12-month summation of the operating hours.
2. Baghouse Operational Restrictions

The pressure drop across the baghouse shall be maintained within the range of 4-8.5 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The operating hours for each month.
 - b. The rolling, 12-month summation of the operating hours.

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

2. Baghouse Pressure Drop Monitoring and Recordkeeping Requirements

The permittee shall properly install, 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 daily basis.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify:
 - a. all exceedances of the rolling, 12-month operating hours limitation; and
 - b. 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 emission limitation shall be determined in accordance with OAC rule 3745-17-03(B)(1).
2. Compliance with the particulate matter emission limitation of 0.01 gr/dscf and 3.0 pounds/hour shall be determined in accordance with OAC rule 3745-17-03(B)(10).
3. Compliance with the long term PM emissions limitation in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation: PM emissions limited to 7.2 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the stated PM emissions limitation shall be determined by calculations using a compilation of hours of operation of this emissions unit in each rolling 12-month period and the actual emission rate determined by stack testing.

4.a Emission testing requirements

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 by June 30, 1998 and by no later than 6 months prior to permit renewal.
- ii. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate matter.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1-5 of 40 CFR Part 60, Appendix A.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

V. Testing Requirements (continued)

4.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(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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 emissions test(s) 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 test(s).

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Shakeout table, shotblast, surface grinders, sand handling equipment and sand preparation equipment, PM emissions controlled by a fabric filter (baghouse #9-#10)	OAC rule 3745-31-05 PTI 02-8154	See II.2.

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. During the initial compliance test on February 17, 1995, the maximum hourly production rate through the shakeout was 44,000 pounds of iron and sand. This represents 60% of the line's maximum capacity.

Therefore, the maximum hourly production rate through the shakeout shall not exceed 44,000 pounds (22 tons) per hour unless compliance is demonstrated at a higher production rate.
2. 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 to the extent possible with good engineering design. The collection efficiency shall be considered adequate if visible particulate emissions of fugitive dust do not exceed 20% opacity as a three-minute average.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep the following records each day this emissions unit operates:
 - a. The number of hours of operation.
 - b. The total tons of iron and sand processed through the shakeout.
 - c. The average hourly tons of iron and sand processed through the shakeout.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the hourly production rate limitation listed in Section B.II.1.

V. Testing Requirements

1. Compliance with the visible emission limitation shall be determined in accordance with OAC rule 3745-17-03(B)(3).

VI. Miscellaneous Requirements

1. Prior to increasing the hourly production rate from 22 tons per hour, Elyria Foundry shall demonstrate compliance with the allowable emission rate for particulate matter. An intent to test notification form shall be sent to the Ohio EPA, Northeast District Office thirty days prior to the test date. This increase in production rate shall not cause an increase in the allowable emission rate for particulate matter.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Pouring #1 (F012)
Activity Description: Foundry #1 pouring.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Foundry #1: pouring and cooling	OAC rule 3745-17-08(B)	See additional terms and conditions
	OAC rule 3745-17-07(B)	See additional terms and conditions

2. Additional Terms and Conditions

- 2.a In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) do not apply to this emissions unit.
- 2.b In accordance with paragraph (B)(7)(e) of OAC Rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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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: Pouring #2 (F013)
Activity Description: Foundry #2 pouring.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Foundry #2: pouring and cooling	OAC rule 3745-17-08(B)	See additional terms and conditions
	OAC rule 3745-17-07(B)	See additional terms and conditions

2. Additional Terms and Conditions

- 2.a In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) do not apply to this emissions unit.
- 2.b In accordance with paragraph (B)(7)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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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: Pouring #3 (F014)
Activity Description: Foundry #3 pouring.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Foundry #3: pouring and cooling	OAC rule 3745-17-08(B)	See additional terms and conditions
	OAC rule 3745-17-07(B)	See additional terms and conditions

2. Additional Terms and Conditions

- 2.a In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) do not apply to this emissions unit.
- 2.b In accordance with paragraph (B)(7)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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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: #3 Core Dept. Mixer- Kloster (F015)
Activity Description: Sand/binder mixing process.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Sand/binder mixer	OAC rule 3745-17-08(B)	See additional terms and conditions emissions of organic compounds shall not exceed 8 lbs/hr and 40 lbs/day
	OAC rule 3745-21-07(G)(2)	
	OAC rule 3745-17-07(B)	See additional terms and conditions

2. Additional Terms and Conditions

- 2.a In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) do not apply to this emissions unit.
- 2.b In accordance with paragraph (B)(7)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. 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 amounts (pounds) of liquid organic materials and sand mixed.
 - c. The number of hours of operation.
 - d. An estimate of the daily organic compound emission rate (pounds), using an emission factor of 0.51 lb OC per ton of sand.
 - e. An estimate of the average hourly organic compound emission rate (pounds).

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include the following information:
 - a. An identification of each day during which the average hourly organic compound emissions exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day.
 - b. An identification of each day during which the organic compound emissions exceeded 40 pounds per day, and the actual organic compound emissions for each such day.

V. Testing Requirements

1. Emission Limitation:
40 lbs organic compounds per day

Applicable Compliance Method:

To determine the actual emission rate for organic compounds, the following equation shall be used:

$$E_d = \text{sand usage rate (in tons per day)} \times 0.51$$

where

$$E_d = \text{organic compound emission rate (lbs/day)}$$

0.51 = emission factor (lb organic compounds per ton of sand) for furan no-bake binder system (based on information provided by resin manufacturer)

2. Emission Limitation:
8 lbs organic compounds per hour

Applicable Compliance Method:

To determine the average actual emission rate for organic compounds, the following equation shall be used:

$$E_h = E_d / H$$

where

$$E_h = \text{average organic compound emission rate (lbs/hr)}$$

E_d = organic compound emission rate (lbs/day), determined in A.V.1.

H = hours of operation per day

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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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: #2 Core Dept. Mixer- Palmer (F016)
Activity Description: Sand/binder mixing process.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Sand/binder mixer	OAC rule 3745-17-08(B)	See additional terms and conditions emissions of organic compounds shall not exceed 8 lbs/hr and 40 lbs/day
	OAC rule 3745-21-07(G)(2)	
	OAC rule 3745-17-07(B)	See additional terms and conditions

2. Additional Terms and Conditions

- 2.a. In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) do not apply to this emissions unit.
- 2.b. In accordance with paragraph (B)(7)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. 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 amounts (pounds) of liquid organic materials and sand mixed.
 - c. The number of hours of operation.
 - d. An estimate of the daily organic compound emission rate (pounds), using an emission factor of 0.51 pound OC per ton of sand.
 - e. An estimate of the average hourly organic compound emission rate (pounds).

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include the following information:
 - a. An identification of each day during which the average hourly organic compound emissions exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day.
 - b. An identification of each day during which the organic compound emissions exceeded 40 pounds per day, and the actual organic compound emissions for each such day.

V. Testing Requirements

1. Emission Limitation:
40 lbs organic compounds per day

Applicable Compliance Method:

To determine the actual emission rate for organic compounds, the following equation shall be used:

$$E_d = \text{sand usage rate (in tons per day)} \times 0.51$$

where

$$E_d = \text{organic compound emission rate (lbs/day)}$$

0.51 = emission factor (lb organic compounds per ton of sand) for furan no-bake binder system (based on information provided by resin manufacturer)

2. Emission Limitation:
8 lbs organic compounds per hour

Applicable Compliance Method:

To determine the average actual emission rate for organic compounds, the following equation shall be used:

$$E_h = E_d / H$$

where

$$E_h = \text{average organic compound emission rate (lbs/hr)}$$

E_d = organic compound emission rate (lbs/day), determined in A.V.1.

H = hours of operation per day

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Sand/binder mixer	OAC rule 3745-31-05 PTI 02-11167 OAC rule 3745-31-05 PTI 02-11167	Emissions of particulate matter shall not exceed 0.82 lbs per hour Visible particulate emissions shall not exceed 20% opacity as a 3-minute average

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

- Compliance with the particulate matter emission limit of 0.82 lb/hr shall be determined in accordance with the following equation:

$$E = T_i \times 1.1 \text{ lbs PM/ton iron}$$

where

E = lbs particulate matter emitted per hour

T_i = tons of iron produced per hour

1.1 lbs PM/ton iron is emission factor from AP-42 Table 12.10-7.

Tons of iron produced can be estimated from hourly sand throughput multiplied by the ratio of iron to sand.

- Compliance with the visible emission limit shall be determined in accordance with OAC rule 3745-17-03(B)(3).

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: #1 Core Dept. Mixer- Sand Master (F017)
Activity Description: Sand/binder mixing process.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Sand/binder mixer	OAC rule 3745-17-08(B)	See additional terms and conditions emissions of organic compounds shall not exceed 8 lbs/hr and 40 lbs/day
	OAC rule 3745-21-07(G)(2)	
	OAC rule 3745-17-07(B)	See additional terms and conditions

2. Additional Terms and Conditions

- 2.a. In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) do not apply to this emissions unit.
- 2.b. In accordance with paragraph (B)(7)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. 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 amounts (pounds) of liquid organic materials and sand mixed.
 - c. The number of hours of operation.
 - d. An estimate of the daily organic compound emission rate (pounds), using an emission factor of 1.17 pounds OC per ton of sand.
 - e. An estimate of the average hourly organic compound emission rate (pounds).

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include the following information:
 - a. An identification of each day during which the average hourly organic compound emissions exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day.
 - b. An identification of each day during which the organic compound emissions exceeded 40 pounds per day, and the actual organic compound emissions for each such day.

V. Testing Requirements

1. Emission Limitation:
40 lbs organic compounds per day

Applicable Compliance Method:

To determine the actual emission rate for organic compounds, the following equation shall be used:

$$E_d = \text{sand usage rate (in tons per day)} \times 1.17 \text{ lbs/ton sand}$$

where

$$E_d = \text{organic compound emission rate (lbs/day)}$$

1.17 = emission factor (lbs OC per ton of sand) for phenolic urethane no-bake binder system, from Ohio Cast Metal Association study

2. Emission Limitation:
8 lbs organic compounds per hour

Applicable Compliance Method:

To determine the actual average emission rate for organic compounds, the following equation shall be used:

$$E_h = E_d / H$$

where

$$E_h = \text{average organic compound emission rate (lbs/hr)}$$

E_d = daily organic compound emission rate, determined in A.V.1.

H = hours of operation each day

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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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: #1 Core Dept. Mixer- Palmer (F018)
Activity Description: Sand/binder mixing process.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Sand/binder mixer	OAC rule 3745-17-08(B)	See additional terms and conditions emissions of organic compounds shall not exceed 8 lbs/hr and 40 lbs/day
	OAC rule 3745-21-07(G)(2)	
	OAC rule 3745-17-07(B)	See additional terms and conditions

2. Additional Terms and Conditions

- 2.a. In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) do not apply to this emissions unit.
- 2.b. In accordance with paragraph (B)(7)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. 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 amounts (pounds) of liquid organic materials and sand mixed.
 - c. The number of hours of operation.
 - d. An estimate of the daily organic compound emission rate (pounds), using an emission factor of 1.17 pounds OC per ton of sand.
 - e. An estimate of the average hourly organic compound emission rate (pounds).

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include the following information:
 - a. An identification of each day during which the average hourly organic compound emissions exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day.
 - b. An identification of each day during which the organic compound emissions exceeded 40 pounds per day, and the actual organic compound emissions for each such day.

V. Testing Requirements

1. Emission Limitation:
40 lbs organic compounds per day

Applicable Compliance Method:

To determine the actual emission rate for organic compounds, the following equation shall be used:

$$E_d = \text{sand usage rate (in tons per day)} \times 1.17 \text{ lbs/ton sand}$$

where

$$E_d = \text{organic compound emission rate (lbs/day)}$$

1.17 = emission factor (lbs OC per ton of sand) for phenolic urethane no-bake binder system, from Ohio Cast Metal Association study

2. Emission Limitation:
8 lbs organic compounds per hour

Applicable Compliance Method:

To determine the actual average emission rate for organic compounds, the following equation shall be used:

$$E_h = E_d / H$$

where

$$E_h = \text{average organic compound emission rate (lbs/hr)}$$

E_d = daily organic compound emission rate, determined in A.V.1.

H = hours of operation each day

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Sand/binder mixer	OAC rule 3745-31-05 PTI 02-9188 OAC rule 3745-31-05 PTI 02-9188	Emissions of particulate matter shall not exceed 0.6 lbs per hour Visible particulate emissions shall not exceed 0% opacity at any time

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

- Compliance with the particulate matter emission limit of 0.6 lbs/hr shall be determined in accordance with the following equation:

$$E = Ti \times 1.1 \text{ lbs PM/ton iron}$$

where

E = lbs particulate matter emitted per hour

Ti = tons of iron produced per hour

1.1 lbs PM/ton iron is emission factor from AP-42 Table 12.10-7.

Tons of iron produced can be estimated from hourly sand throughput multiplied by the ratio of iron to sand.

- Compliance with the visible emission limit shall be determined in accordance with OAC rule 3745-17-03(B)(3).

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: #6 (North) holding furnace - new foundry. (F019)

Activity Description: Holding and pouring of molten metal.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Iron holding furnace	OAC rule 3745-17-08(B)	See additional terms and conditions
	OAC rule 3745-17-07(B)	See additional terms and conditions
	OAC rule 3745-31-05 PTI 02-11167	Emissions of particulate matter shall not exceed 3.2 lbs/hr and 3.2 tons
	OAC rule 3745-31-05 PTI 02-11167	Visible particulate emissions shall not exceed 5% opacity, as a six-minute average.

2. Additional Terms and Conditions

- 2.a In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) do not apply to this emissions unit.
- 2.b In accordance with paragraph (B)(7)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.

II. Operational Restrictions

1. The maximum annual production rate for this emissions unit shall not exceed 10,500 tons of iron, based upon a rolling, 12-month summation of the production rates.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. The production rate for each month.
 - b. The rolling, 12-month summation of the production rates.

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

2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month production rate limitation for this furnace.
2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions 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 Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Emission Limitation:
3.2 lbs particulate matter per hour

Applicable Compliance Method:

To determine the actual emission rate for particulate matter, the following equation shall be used:

$$E = \text{iron throughput (in tons per hour)} \times 0.6 \text{ (lbs/ton)}$$

where

$$E = \text{particulate matter emissions (lbs/hr)}$$

0.6 = emission factor in lbs particulate matter per ton of iron (determined from AP-42 Section 12.10 and the Ohio EPA's document "Reasonably Available Control Measures for Fugitive Dust Sources" Section 2.7 for electric induction furnaces charging and tapping)

2. Emission Limitation:
3.2 tons particulate matter per rolling 12-month period

Applicable Compliance Method:

To determine the actual emission rate for particulate matter, the following equation shall be used:

$$E = \text{actual iron throughput (in tons per rolling 12-month period)} \times 0.6 \times (1 \text{ ton}/2000 \text{ lbs})$$

where

$$E = \text{actual particulate matter emissions (tons/rolling 12-month period)}$$

0.6 = emission factor in lbs particulate matter per ton of iron (determined from AP-42 Section 12.10 and the Ohio EPA's document "Reasonably Available Control Measures for Fugitive Dust Sources" Section 2.7 for electric induction furnaces charging and tapping)

3. Compliance with the visible emission limit in section A.I. shall be determined in accordance with Method 9 of 40 CFR Part 60, Appendix A.

VI. Miscellaneous Requirements

1. This furnace shall not be used as a melting furnace. Prior to modifying this furnace in order to melt scrap, the permittee shall apply for and obtain an Ohio EPA Permit to Install.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: #5 (South) holding furnace - new foundry. (F020)
Activity Description: Holding and pouring of molten metal.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Iron holding furnace	OAC rule 3745-17-08(B)	See additional terms and conditions
	OAC rule 3745-17-07(B)	See additional terms and conditions
	OAC rule 3745-31-05 PTI 02-11167	Emissions of particulate matter shall not exceed 3.2 lbs/hr and 3.2 tons
	OAC rule 3745-31-05 PTI 02-11167	Visible particulate emissions shall not exceed 5% opacity, as a

2. Additional Terms and Conditions

- 2.a. In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) do not apply to this emissions unit.
- 2.b. In accordance with paragraph (B)(7)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.

II. Operational Restrictions

1. The maximum annual production rate for this emissions unit shall not exceed 10,500 tons of iron, based upon a rolling, 12-month summation of the production rates.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. The production rate for each month.
 - b. The rolling, 12-month summation of the production rates.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month production rate limitation for this furnace.
2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions 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 Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Emission Limitation:
3.2 lbs particulate matter per hour

Applicable Compliance Method:

To determine the actual emission rate for particulate matter, the following equation shall be used:

$$E = \text{iron throughput (in tons per hour)} \times 0.6 \text{ (lbs/ton)}$$

where

$$E = \text{particulate matter emissions (lbs/hr)}$$

0.6 = emission factor in lbs particulate matter per ton of iron (determined from AP-42 Section 12.10 and the Ohio EPA's document "Reasonably Available Control Measures for Fugitive Dust Sources" Section 2.7 for electric induction furnaces charging and tapping)

2. Emission Limitation:
3.2 tons particulate matter per rolling 12-month period

Applicable Compliance Method:

To determine the actual emission rate for particulate matter, the following equation shall be used:

$$E = \text{actual iron throughput (in tons per rolling 12-month period)} \times 0.6 \times (1 \text{ ton}/2000 \text{ lbs})$$

where

$$E = \text{actual particulate matter emissions (tons/yr)}$$

0.6 = emission factor in lbs particulate matter per ton of iron (determined from AP-42 Section 12.10 and the Ohio EPA's document "Reasonably Available Control Measures for Fugitive Dust Sources" Section 2.7 for electric induction furnaces charging and tapping)

3. Compliance with the visible emission limit in section A.I. shall be determined in accordance with Method 9 of 40 CFR Part 60, Appendix A.

VI. Miscellaneous Requirements

1. This furnace shall not be used as a melting furnace. Prior to modifying this furnace in order to melt scrap, the permittee shall apply for and obtain an Ohio EPA Permit to Install.

B. State Enforceable Section

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

Operations, Property,

Applicable Rules/

Limitations/Control

Additional Terms and Conditions

None

II.

None

III.

None

IV.

None

V.

None

VI.

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Paint Booth (K002)

Activity Description: Application of coatings onto castings.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Paint spray booth for coating castings	OAC rule 3745-21-09 (U)(1)(d)	3.5 lbs of volatile organic compounds (VOC) per gallon of coating, excluding water and exempt solvents
	OAC rule 3745-17-11(B)(1)	PM:0.551 lb/hr
	OAC rule 3745-17-07(A)(1)	Visible particulate matter emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The permittee shall employ a dry exhaust filtration system while this emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each month for the line:
 - a. The name and identification number of each coating, as applied.
 - b. The VOC content of each coating (excluding water and exempt solvents), as applied.
2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying coatings. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.
2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:

- 1.a. Emission Limitation: 0.551 lb particulate matter/hr

Applicable Compliance Method:

To determine the actual worst case emission rate for particulate matter, the following equation shall be used:

$$E = \text{maximum coating solids usage rate (in pounds per hour)} \times (1-TE) \times (1-CE)$$

E = particulate matter emissions rate (lbs/hr)

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used

CE = control efficiency of the control equipment

- 1.b. Emission Limitation:
20% opacity as a 6 minute average

Applicable Compliance Method:

U.S. EPA reference method 9, if required by the Ohio EPA

- 1.c. Emission Limitation: 3.5 lbs VOC/gallon coating, excluding water and exempt solvents

Applicable Compliance Method:

OAC rule 3745-21-10(B). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and related coatings, respectively. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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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: Shot Blast 6 ft. (P004)
Activity Description: Surface cleaning of castings.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Shot blast cleaning of castings, PM emissions controlled by a fabric filter (baghouse #1)	OAC rule 3745-17-07(A)(1)	Visible particulate matter emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(1)	Emissions of particulate matter shall not exceed 5.38 pounds per hour

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. Baghouse Operational Restrictions

The pressure drop across the baghouse shall be maintained within the range of 4 to 8 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. Baghouse Pressure Drop Monitoring and Recordkeeping Requirements

The permittee shall properly install, 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 daily basis.

IV. Reporting Requirements

1. Baghouse Pressure Drop Reporting Requirements

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 emission limitation shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.

V. Testing Requirements (continued)

2. Compliance with the particulate matter emission limitation of 5.38 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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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: Shot Blast 8 ft. (P005)
Activity Description: Shot blast cleaning of castings.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Shot blast cleaning of castings, PM emissions controlled by a fabric filter (#7 baghouse)	OAC rule 3745-17-07(A)(1)	Visible particulate matter emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(1)	Emissions of particulate matter shall not exceed 9.94 pounds per hour

2. Additional Terms and Conditions

None

II. Operational Restrictions

- Baghouse Operational Restrictions

The pressure drop across the baghouse shall be maintained within the range of 4 to 8.5 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

- Baghouse Pressure Drop Monitoring and Recordkeeping Requirements

The permittee shall properly install, 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 daily basis.

IV. Reporting Requirements

- Baghouse Pressure Drop Reporting Requirements

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

- Compliance with the visible emission limitation shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.

V. Testing Requirements (continued)

2. Compliance with the particulate matter emission limitation of 9.94 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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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: Vac-Blast (P006)

Activity Description: Grit blasting cabinet.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Grit blast cleaning of castings, PM emissions controlled by a fabric filter (baghouse #2)	OAC rule 3745-17-07(A)(1)	Visible particulate matter emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(1)	Emissions of particulate matter shall not exceed 4.76 pounds per hour

2. Additional Terms and Conditions

None

II. Operational Restrictions

- Baghouse Operational Restrictions

The pressure drop across the baghouse shall be maintained within the range of 4 to 8.5 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

- Baghouse Pressure Drop Monitoring and Recordkeeping Requirements

The permittee shall properly install, 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 daily basis.

IV. Reporting Requirements

- Baghouse Pressure Drop Reporting Requirements

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

- Compliance with the visible emission limitation shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.

V. Testing Requirements (continued)

2. Compliance with the particulate matter emission limitation of 4.76 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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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: Cut-off Saw (P007)

Activity Description: Abrasive wheel cut-off for gates and risers from castings.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Abrasive wheel cut-off for gates and risers from castings, PM emissions controlled by a fabric filter (baghouse #6)	OAC rule 3745-17-07(A)(1)	Visible particulate matter emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(1)	Emissions of particulate matter shall not exceed 4.91 pounds per hour

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. Baghouse Operational Restrictions

The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. Baghouse Pressure Drop Monitoring and Recordkeeping Requirements

The permittee shall properly install, 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 daily basis.

IV. Reporting Requirements

1. Baghouse Pressure Drop Reporting Requirements

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 emission limitation shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.

V. Testing Requirements (continued)

2. Compliance with the particulate matter emission limitation of 4.91 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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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: N. Plant Reclamation (P008)
Activity Description: Pneumatic cleaning of castings and sand reclamation.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Sand reclaim system: natural gas fired sand dryer, sand scrubber, cooler, associated storage silos and material handling equipment. PM	OAC rule 3745-17-07(A)(1)	Visible particulate matter emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(1)	Emissions of particulate matter shall not exceed 4.48 pounds per hour

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. Baghouse Operational Restrictions
 - a. The pressure drop across baghouse #3 shall be maintained within the range of 4 to 8.5 inches of water while the emissions unit is in operation.
 - b. The pressure drop across baghouse #4 shall be maintained within the range of 4 to 8 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. Baghouse Pressure Drop Monitoring and Recordkeeping Requirements

The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouses 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 baghouses on daily basis.

IV. Reporting Requirements

1. Baghouse Pressure Drop Reporting Requirements

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

V. Testing Requirements

1. Compliance with the visible emission limitation shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.
2. Compliance with the particulate matter emission limitation of 4.48 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10).

3.a Emission testing requirements

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 6 months prior to permit renewal.
- ii. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate matter.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1-5 of 40 CFR Part 60, Appendix A.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

A particulate emissions test also shall be conducted at the inlet of the control devices to determine the uncontrolled mass rate of emissions for the emission unit, 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 test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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 emissions test(s) 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 test(s).

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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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: Scrap Dryer (P010)
Activity Description: Drying of scrap iron and steel.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas fired scrap dryer	OAC rule 3745-17-07(A)(1)	Visible particulate matter emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(1)	Emissions of particulate matter shall not exceed 19.2 pounds per hour

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the visible emission limitation shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.
2. Compliance with the particulate matter emission limitation of 19.2 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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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: Meltshop Innoculation (P017)
Activity Description: Ductile iron processing.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Ductile iron processing in meltshop, PM emissions controlled by a fabric filter (baghouse #17)	OAC rule 3745-17-07(A)(1)	Visible particulate matter emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(1)	Emissions of particulate matter shall not exceed 5.85 pounds per hour

2. Additional Terms and Conditions

None

II. Operational Restrictions

- Baghouse Operational Restrictions

The pressure drop across the baghouse shall be maintained within the range of 4 to 8.5 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

- Baghouse Pressure Drop Monitoring and Recordkeeping Requirements

The permittee shall properly install, 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 daily basis.

IV. Reporting Requirements

- Baghouse Pressure Drop Reporting Requirements

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

- Compliance with the visible emission limitation shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.

V. Testing Requirements (continued)

2. Compliance with the particulate matter emission limitation of 5.85 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10).

3.a Emission testing requirements

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 renewal.

ii. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate matter.

iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1-5 of 40 CFR Part 60, Appendix A.

iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

A particulate emissions test also shall be conducted at the inlet of the control devices to determine the uncontrolled mass rate of emissions for the emission unit, 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 test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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 emissions test(s) 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 test(s).

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Ductile iron processing in meltshop, PM emissions controlled by a fabric filter (baghouse #17)		

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The baghouse used to control particulate matter emissions from this emissions unit (baghouse #17) also controls particulate matter emissions from #3 shakeout (P026). This emissions unit shall not operate at the same time that emissions unit P026 is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain daily records on the periods of time that this emissions unit is in operation.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time that this emissions unit was in operation at the same time that emissions unit P026 (#3 shakeout) was in operation.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Shakeout #1 (P023)
Activity Description: Shakeout/separation of sand and castings.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
No.1 shakeout system, PM emissions controlled by a fabric filter (baghouse #8)	OAC rule 3745-17-07(A)(1)	Visible particulate matter emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(1)	Emissions of particulate matter shall not exceed 5.59 pounds per hour

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. Baghouse Operational Restrictions

The pressure drop across the baghouse shall be maintained within the range of 4 to 8.5 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. Baghouse Pressure Drop Monitoring and Recordkeeping Requirements

The permittee shall properly install, 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 daily basis.

IV. Reporting Requirements

1. Baghouse Pressure Drop Reporting Requirements

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 emission limitation shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.

V. Testing Requirements (continued)

2. Compliance with the particulate matter emission limitation of 5.59 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10).

3.a. Emission testing requirements

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 renewal.

ii. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate matter.

iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1-5 of 40 CFR Part 60, Appendix A.

iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

A particulate emissions test also shall be conducted at the inlet of the control devices to determine the uncontrolled mass rate of emissions for the emission unit, 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 test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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 emissions test(s) 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 test(s).

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Shakeout #2 (P024)
Activity Description: Shakeout/separation of sand and castings.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
No.2 shakeout system, PM emissions controlled by a fabric filter (baghouse #15)	OAC rule 3745-17-07(A)(1)	Visible particulate matter emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(1)	Emissions of particulate matter shall not exceed 2.93 pounds per hour

2. Additional Terms and Conditions

None

II. Operational Restrictions

- Baghouse Operational Restrictions

The pressure drop across the baghouse shall be maintained within the range of 4 to 8.5 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

- Baghouse Pressure Drop Monitoring and Recordkeeping Requirements

The permittee shall properly install, 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 daily basis.

IV. Reporting Requirements

- Baghouse Pressure Drop Reporting Requirements

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

- Compliance with the visible emission limitation shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.

V. Testing Requirements (continued)

2. Compliance with the particulate matter emission limitation of 2.93 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
No.2 shakeout system, PM emissions controlled by a fabric filter (baghouse #15)		

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The baghouse used to control particulate matter emissions from this emissions unit (baghouse #15) also controls particulate matter emissions from #3 ductile iron station (F007). This emissions unit shall not operate at the same time that emissions unit F007 is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain daily records on the periods of time that this emissions unit is in operation.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time that this emissions unit was in operation at the same time that emissions unit F007 (#3 ductile iron station) was in operation.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: No. 3 Mullers (P025)
Activity Description: Preparation of molding sand.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Foundry #3 sand mullers, PM emissions controlled by a fabric filter (baghouse #13)	OAC rule 3745-17-07(A)(1)	Visible particulate matter emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(1)	Emissions of particulate matter shall not exceed 44.6 pounds per hour

2. Additional Terms and Conditions

None

II. Operational Restrictions

- Baghouse Operational Restrictions

The pressure drop across the baghouse shall be maintained within the range of 4 to 8.5 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

- Baghouse Pressure Drop Monitoring and Recordkeeping Requirements

The permittee shall properly install, 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 daily basis.

IV. Reporting Requirements

- Baghouse Pressure Drop Reporting Requirements

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

- Compliance with the visible emission limitation shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.

V. Testing Requirements (continued)

2. Compliance with the particulate matter emission limitation of 44.6 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Shakeout #3 (P026)
Activity Description: Shakeout/separation of sand and castings.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
No.3 shakeout system, PM emissions controlled by a fabric filter (baghouse #17)	OAC rule 3745-17-07(A)(1)	Visible particulate matter emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(1)	Emissions of particulate matter shall not exceed 2.24 pounds per hour

2. Additional Terms and Conditions

None

II. Operational Restrictions

- Baghouse Operational Restrictions

The pressure drop across the baghouse shall be maintained within the range of 4 to 8.5 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

- Baghouse Pressure Drop Monitoring and Recordkeeping Requirements

The permittee shall properly install, 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 daily basis.

IV. Reporting Requirements

- Baghouse Pressure Drop Reporting Requirements

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

- Compliance with the visible emission limitation shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.

V. Testing Requirements (continued)

2. Compliance with the particulate matter emission limitation of 2.24 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
No.3 shakeout system, PM emissions controlled by a fabric filter (baghouse #17)		

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The baghouse used to control particulate matter emissions from this emissions unit (baghouse #17) also controls particulate matter emissions from the meltshop ductile iron station (P017). This emissions unit shall not operate at the same time that emissions unit P017 is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain daily records on the periods of time that this emissions unit is in operation.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time that this emissions unit was in operation at the same time that emissions unit P017 (meltshop ductile iron station) was in operation.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: MS Sand Reclaimer (P027)
Activity Description: South plant mechanical reclaimer.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
South plant sand reclaim system: vibramill crusher, sand scrubber, cooler/classifier, associated storage silos and material handling system, PM emissions controlled by a fabric filter (baghouse #13)	OAC rule 3745-17-07(A)(1)	Visible particulate matter emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(1)	Emissions of particulate matter shall not exceed 4.73 pounds per hour

2. Additional Terms and Conditions

None

II. Operational Restrictions

- Baghouse Operational Restrictions

The pressure drop across the baghouse shall be maintained within the range of 4 to 8.5 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

- Baghouse Pressure Drop Monitoring and Recordkeeping Requirements

The permittee shall properly install, 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 daily basis.

IV. Reporting Requirements

- Baghouse Pressure Drop Reporting Requirements

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 emission limitation shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.
2. Compliance with the particulate matter emission limitation of 4.73 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10).

3.a Emission testing requirements

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 months prior to permit renewal.
- ii. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate matter.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1-5 of 40 CFR Part 60, Appendix A.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

A particulate emissions test also shall be conducted at the inlet of the control devices to determine the uncontrolled mass rate of emissions for the emission unit, 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 test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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 emissions test(s) 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 test(s).

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
South plant sand reclaim system: vibramill crusher, sand scrubber, cooler/classifier, associated storage silos and material handling system, PM emissions controlled by a fabric filter (baghouse #13)	OAC rule 3745-31-05 PTI 02-6389	Emissions of particulate matter shall not exceed 0.03 grain per dry standard cubic foot of exhaust gases and 1.92 pounds per hour

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

1. Compliance with the particulate matter emission limitation of 0.03 grain per dry standard cubic foot of exhaust gases shall be determined in accordance with OAC Rule 3745-17-03(B)(10). Emissions testing in accordance with section A.V.3. of this permit shall be done to demonstrate compliance with this emissions limitation.
2. Compliance with the particulate matter emission limitation of 1.92 pounds per hour shall be determined in accordance with OAC Rule 3745-17-03(B)(10). Emissions testing in accordance with section A.V.3. of this permit shall be done to demonstrate compliance with this emissions limitation.

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: T Reclamation System (P028)
Activity Description: South plant thermal reclaimer.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
South plant thermal sand reclaim system: rotary calciner, pre-cooler fluidizer, sand scrubber, cooler/classifier, associated storage silos and material handling equipment, PM emissions controlled by a fabric filter (baghouse #12)	OAC rule 3745-17-07(A)(1)	Visible particulate matter emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(1)	Emissions of particulate matter shall not exceed 2.16 pounds per hour.
	OAC rule 3745-18-06(D)(2)	Emissions of sulfur dioxide shall not exceed 62.6 pounds per hour.

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. Baghouse Operational Restrictions

The pressure drop across the baghouse shall be maintained within the range of 4 to 8.5 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. Baghouse Pressure Drop Monitoring and Recordkeeping Requirements

The permittee shall properly install, 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 daily basis.

IV. Reporting Requirements

1. Baghouse Pressure Drop Reporting Requirements

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 emission limitation shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.
2. Compliance with the particulate matter emission limitation of 2.16 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10).
3. Compliance with the sulfur dioxide emission limitation of 62.6 pounds per hour shall be determined in accordance with OAC rule 3745-18-04(A).
- 4.a Emission testing requirements

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 6 months prior to permit renewal.
- ii. The emission testing shall be conducted to demonstrate compliance with the mass emission limits for particulate matter and sulfur dioxide.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulate matter, Methods 1-5 of 40 CFR Part 60, Appendix A, for sulfur dioxide, Methods 6 or 6C of 40 CFR Part 60, Appendix A.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

A particulate emissions test also shall be conducted at the inlet of the control devices to determine the uncontrolled mass rate of emissions for the emission unit, 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.

- 4.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(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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 emissions test(s) 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 test(s).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
South plant thermal sand reclaim system: rotary calciner, pre-cooler fluidizer, sand scrubber, cooler/classifier, associated storage silos and material handling equipment, PM emissions controlled by a fabric filter (baghouse #12)	OAC rule 3745-31-05 PTI 02-6389	Emissions of particulate matter shall not exceed 0.03 grain per dry standard cubic foot of exhaust gases and 1.26 pounds per hour
	OAC rule 3745-31-05 PTI 02-6389	Emissions of sulfur dioxide shall not exceed 10.67 pounds per hour
	OAC rule 3745-31-05 PTI 02-6389	Emissions of oxides of nitrogen shall not exceed 3.33 pounds per hour
	OAC rule 3745-31-05 PTI 02-6389	Emissions of organic compounds shall not exceed 2.26 pounds per hour

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

- Compliance with the particulate matter emission limitation of 0.03 grain per dry standard cubic foot of exhaust gases shall be determined in accordance with OAC rule 3745-17-03(B)(10). Emissions testing in accordance with section A.V.4. of this permit shall be done to demonstrate compliance with this emissions limitation.
- Compliance with the particulate matter emission limitation of 1.26 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). Emissions testing in accordance with section A.V.4. of this permit shall be done to demonstrate compliance with this emissions limitation.
- Compliance with the sulfur dioxide emission limitation of 10.67 pounds per hour shall be determined in accordance with OAC rule 3745-18-04(A). Emissions testing in accordance with section A.V.4. of this permit shall be done to demonstrate compliance with this emissions limitation.

V. Testing Requirements (continued)

4. Compliance with the NOx emission limitation of 3.33 pounds per hour shall be determined in accordance with Methods 7 or 7E of 40 CFR Part 60, Appendix A. No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A).
5. Compliance with the OC emission limitation of 2.26 pounds per hour shall be determined in accordance with OAC Rule 3745-21-10(C). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC Rule 3745-15-04(A).

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Core and mold wash operations (P029)
Activity Description: Core/Mold wash operations.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Foundry core and mold wash operations	OAC rule 3745-21-07(G)(2)	See additional terms and conditions

2. Additional Terms and Conditions

- 2.a This emissions unit shall not employ organic liquids which are 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 records on all materials used in this emissions unit:
 - a. The identification of the chemical compound and its physical state.
 - b. For any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC 3745-21-01(C)(5).

IV. Reporting Requirements

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

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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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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