John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Interim Director

2/21/2014

Certified Mail

Mr. Earl Marcum
Elyria Foundry
120 Filbert Street
Elyria, OH 44036

Facility ID: 0247040014
Permit Number: P0112717
County: Lorain

RE: PRELIMINARY PROPOSED AIR POLLUTION TITLE V PERMIT
Permit Type: Renewal

Dear Permit Holder:

Enclosed is the Ohio Environmental Protection Agency (EPA)Preliminary Proposed Title V permit that was issued in draft form on 12/24/2013. The comment period for the Draft permit has ended. We are now ready to submit this permit to U.S. EPA for approval.

We are submitting this for your review and comment. If you do not agree with the Preliminary Proposed Title V permit as written, you now have the opportunity to raise your concerns. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the permit or in narrative format. Any comments must be sent to the following within 14 days of your receipt of this letter:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and

Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087

If you believe that it is necessary to have an informal conference with us, then, as part of your written comments, you should request a conference concerning the written comments.If comments are not submitted within 14 days of your receipt of this letter, we will forward the proposed permit to U.S. EPA for approval. All comments received will be carefully considered before proceeding with the proposed permit.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA DAPC, Northeast District Office

Response to Comments

Facility ID:	0247040014
Facility Name:	Elyria Foundry
Facility Description:	Iron Foundry
Facility Address:	120 Filbert Street Elyria, OH 44036 Lorain County
Permit:	P0112717, Title V Permit - Renewal
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the The Chronicle Telegram on 12/26/2013. The comment period ended on 01/25/2014.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

1. Topic: None

a. Comment: None

b. Response: None

PRELIMINARY PROPOSED

Division of Air Pollution Control
Title V Permit
for
Elyria Foundry

Facility ID:	0247040014
Permit Number:	P0112717
Permit Type:	Renewal
Issued:	2/21/2014
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance

Division of Air Pollution Control
Title V Permit
for
Elyria Foundry

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Authorization

Facility ID:	0247040014
Facility Description:	Iron Foundry
Application Number(s):	A0046232, A0048958
Permit Number:	P0112717
Permit Description:	Renewal Title V PTO for a steel and iron foundry
Permit Type:	Renewal
Issue Date:	2/21/2014
Effective Date:	To be entered upon final issuance
Expiration Date:	To be entered upon final issuance
Superseded Permit Number:	P0085280

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

Elyria Foundry
120 Filbert Street
Elyria, OH 44036

Ohio Environmental Protection Agency (EPA)District Office or local air agency responsible for processing and administering your permit:

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

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. 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. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Ohio EPA DAPC, Northeast District Office. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months and no later than 6 months prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Interim Director

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions

(2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions

(3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting For State-Only Requirements

(4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(5) Standard Term and Condition A. 30.

(Authority for term: ORC 3704.036(A))

2. Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

(1) The date, place (as defined in the permit), and time of sampling or measurements.

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions existing at the time of sampling or measurement.

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

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

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

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

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

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

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

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any submittedscheduled maintenancerequests, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

(2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the

probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be submitted promptly to the Ohio EPA DAPC, Northeast District Office. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

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

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

See A.29 below if no deviations occurred during the quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

(3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted to the Ohio EPA DAPC, Northeast District Office by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally

enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

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

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

(4) Each written report shall be signed by a Responsible Official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete." Signature by the Responsible Official may be represented by entry of the personal identification number (PIN) by the Responsible Official as part of the electronic submission process or by the scanned attestation document signed by the Responsible Official that is attached to the electronically submitted written report.

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

(5) Consistent with A.2.c.1. above, reports of any required monitoring and/or record keeping information required to be submitted to Ohio EPA shall be submitted to Ohio EPA DAPC, Northeast District Office unless otherwise specified.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Reporting of Any Exceedence of a Federally Enforceable Emission Limitation or Control Requirement Resulting From Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

4. Risk Management Plans

If applicable, the permittee shall develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. ("Act"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

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

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

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

5. Title IV Provisions

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

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

6. Severability Clause

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

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

7. General Requirements

a) 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 permitexcept as provided pursuant to A.16 below.

c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.11 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

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

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

f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:

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

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

(3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. Fees

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

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

9. Marketable Permit Programs

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

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

10. 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 standard terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

11. Reopening for Cause

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

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

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

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

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

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

12. Federal and State Enforceability

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

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

13. 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

Officialthat, 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:

(1) 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.

(2) 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.

(3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

(4) 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 Ohio EPA DAPC, Northeast District Office 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:

(1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

(2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

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

(1) 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.

(2) Compliance certifications shall include the following:

a. Identification of each term or condition that is the basis of the certification. The identification may include a statement by the Responsible Official that every term and condition that is federally enforceable has been reviewed, and such terms and conditions with which there has been continuous compliance throughout the year are not separately identified.

b. The permittee's current compliance status.

c. Whether compliance was continuous or intermittentconsistent with A.13.d.2.a above.

d. The method(s) used for determining the compliance status of the source currently and over the required reporting period consistent with A.13.d.2.a above.

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

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

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

14. Permit Shield

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

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

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

15. 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 Ohio EPA DAPC, Northeast District Office 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 Ohio EPA DAPC, Northeast District Office as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

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

16. Emergencies

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

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

17. Off-Permit Changes

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

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

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

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

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

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

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

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

18. Compliance Method Requirements

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

(This term is provided for informational purposes only.)

19. Insignificant Activities or Emissions Levels

Each IEU that is subject to one or more applicable requirements shall comply with those applicable requirements.

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

20. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

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

21. Air Pollution Nuisance

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

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

22. Permanent Shutdown of an Emissions Unit

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

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

Unless otherwise exempted, noemissions unit identified in this permit that has beencertified by the Responsible Official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

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

23. Title VI Provisions

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

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

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

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

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

24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or record keeping information shall be submitted to theOhio EPA DAPC, Northeast District Office.

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

25. Records Retention Requirements Under State Law Only

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.

26. 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.

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

27. Scheduled Maintenance/Malfunction Reporting For State-Only Requirements

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 Ohio EPA DAPC, Northeast District Office 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).

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Ohio EPA DAPC, Northeast District Office must be notified in writing of any transfer of this permit.

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

29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or

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

c) where the company's Responsible Official has certified that an emissions unit has been permanently shut down.

30. Submitting Documents Required by this Permit

All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event ofan alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the Ohio EPA DAPC, Northeast District Office, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the Responsible Official may be represented as provided through procedures established in Air Services.

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

   a) None.

2. Emissions of Hazardous Air Pollutants (HAPs) from all emissions units at the facility, including de minimis and other exempt units, shall not exceed:

   9.5 tons per year, as a rolling, 12-month summation for any individual HAP; and

   24.5 tons per year, as a rolling, 12-month summation for total combined HAPs.

3. The permittee shall maintain monthly records of individual HAP and total combined HAPs emissions from the facility and the rolling, 12-month summation of individual HAP and total combined HAPs emissions.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month individual HAP and total combined HAPs emission limitations.

5. Provided compliance with B.2 above is demonstrated, 40 CFR Part 63, Subpart MMMM (National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products) is not applicable to K003.

6. The Ohio EPA has determined that this facility may be applicable to the requirements of 40 CFR Part 63, Subparts EEEEE and ZZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries and Iron and Steel Foundries Area Sources. Although Ohio EPA has determined that these Generally Available Control Technology NESHAP (GACT) apply, at this time Ohio EPA does not have the authority to enforce these standards. Instead, U.S. EPA has the authority to enforce these standards. Please be advised, that all requirements associated with these rules are in effect and shall be enforced by U.S. EPA. For more information on the area source rules, please refer to the following U.S. EPA website: http://www.epa.gov/ttn/atw/area/arearules.html.

   The permittee has produced more than 20,000 tons of metal in the calendar year and therefore is classified as a large foundry.

7. As an existing affected source classified as a large foundry in accordance with 40 CFR 63.10880(b)(1) and (f), the permittee has committed to comply with the requirements specified in 40 CFR 63.10885(a)(1), 63.10885(b)(4) and 63.10886. The permittee shall also comply with the applicable requirements specified in 40 CFR 63.10895 through 63.10900 and Tables 1, 3 and 4 of 40 CFR Part 63, Subpart ZZZZZ.

C. Emissions Unit Terms and Conditions

1. F006, #2 Core Dept. Mixer- C. E. Cast

Operations, Property and/or Equipment Description:

#2 Core Department CE Cast Mixer (PWR - 30 tons per hour). Also a 30 ton sand bin. Uses Furan No-Bake. The 30-ton sand bin is vented to a baghouse.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) (PTI P0104616)	Particulate matter (PM) emissions from the baghouse shall not exceed 0.50 pound per hour and 0.17 ton per year. [see b)(2)b] Particulate matter less than 10 microns in diameter (PM_{10}) emissions from the baghouse shall not exceed 0.25 pound per hour and 0.09 ton per year. [see b)(2)b] Fugitive PM emissions shall not exceed 3.62 tons per year. Fugitive PM_{10} emissions shall not exceed 1.81 tons per year. Organic compound (OC)/volatile organic compound (VOC) emissions shall not exceed 1.32 pounds per hour and 0.46 ton per year.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations required by this applicable rule are equivalent to and/or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)e.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)a and b)(2)f.
d.	OAC rule 3745-17-07(B)	See b)(2)c.
e.	OAC rule 3745-17-08(B)	See b)(2)d.
f.	OAC rule 3745-17-11	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
g.	OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

(2) Additional Terms and Conditions

a. This permit for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment), as provided by the permittee, for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

i. the sand bins that serve this emissions unit shall be vented to a baghouse.

b. The baghouse that currently controls this emissions unit also controls other emissions units. The emission limitations, stated above, only apply to this emission unit's contribution to the total baghouse emissions.

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

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

e. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

f. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter, particulate matter less than 10 microns in diameter and volatile organic compounds from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

c) Operational Restrictions

(1) The amount of sand processed through this emissions unit shall not exceed 20,700 tons per year.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0104616]

d) Monitoring and/or Recordkeeping 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 baghouse that the bins are vented and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104616]

(2) The permittee shall keep daily records of the amount of sand, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104616]

(3) The permittee shall keep annual records of the amount of sand, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104616]

(4) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range of 4.0 to 8.5 inches of water, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date the corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The range of the pressure drop across the baghouse shall be 4.0 to 8.5 inches of water, unless revisions are requested by the permittee and approved in writing by the Northeast District Office of the Ohio EPA. The permittee may request revisions to the permitted range for the pressure drop based upon information obtained during future testing that demonstrates compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104616]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the baghouse that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104616]

(2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in “a” (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104616]

(3) The permittee shall submit annual deviation (excursion) reports that identify if the annual sand usage exceeded 20,700 tons.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104616]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM emissions from the baghouse shall not exceed 0.50 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Esh = 0.33 x TPH x (1 - FE)

where:

Esh = emissions from stack, pound per hour;

0.33 = emission factor from RACM, page 2-219; Core and Mold Sand Unloading and Storage - 0.03 lb/ton sand unloaded, plus Core Sand and Binder Mixing - 0.3 lb/ton sand mixed (0.03 + 0.3 = 0.33);

TPH = tons of sand processed through emissions unit, maximum capacity of 30.0 tons per hour; and

FE = baghouse efficiency, assumed to be 95%, 0.95.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104616]

b. Emission Limitation:

PM emissions from the baghouse shall not exceed 0.17 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Esy = [0.33 x TPY x (1 - FE)]/2000

where:

Esy = emissions from stack, ton per year;

0.33 = emission factor from RACM, page 2-219; Core and Mold Sand Unloading and Storage - 0.03 lb/ton sand unloaded, plus Core Sand and Binder Mixing - 0.3 lb/ton sand mixed (0.03 + 0.3 = 0.33);

TPY = tons of sand processed through emissions unit, requested capacity of 20,700 tons per year;

FE = baghouse efficiency, assumed to be 95%, 0.95; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104616]

c. Emission Limitation:

PM_{10} emissions from the baghouse shall not exceed 0.25 pound per hour and 0.09 ton per year.

Applicable Compliance Method:

PM_{10} emissions are assumed to be 50% of PM emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104616]

d. Emission Limitation:

Fugitive PM emissions shall not exceed 3.62 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Ef = [(0.35 x TPY]/2000

where:

Ef = fugitive emissions, tons per year;

0.35 = emission factor from RACM page 2-219 for Core Making, pound of PM per ton of core produced;

TPY = tons of sand processed through emissions unit, requested capacity of 20,700 tons per year; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104616]

e. Emission Limitation:

Fugitive PM_{10} emissions shall not exceed 1.81 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Ef = [(0.35 x TPY)/2000] x 0.5

where:

Ef = fugitive PM_{10} emissions, tons per year;

0.35 = emission factor from RACM page 2-219 for Core Making, pound of PM per ton of core produced;

TPY = tons of sand processed through emissions unit, requested capacity of 20,700 tons per year;

2000 = conversion factor, pounds per ton; and

0.5 = assumes 50% of PM emissions is PM_{10}.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104616]

f. Emission Limitation:

OC/VOC emissions shall not exceed 1.32 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = TPH x EF

where:

E = emissions of OC/VOC, pounds per hour;

TPH = throughput of sand, in tons, maximum capacity of 30.0 tons per hour; and

EF = emission factor from resin manufacturer indicating 0.022 lb OC/VOC per ton of sand, doubling factor provided by Elyria Foundry (0.022 x 2 = 0.044).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104616]

g. Emission Limitation:

OC/VOC emissions shall not exceed 0.46 ton per hour.

Applicable Compliance Method:

Compliance with the annual sand usage limitation of 20,700 tons is sufficient to demonstrate compliance or by using the following equation:

E = [TPY x EF]/2000

where:

E = emissions of OC/VOC, tons per year;

TPY = throughput of sand, in tons, requested capacity of 20,700 tons per year;

EF = emission factor from resin manufacturer indicating 0.022 lb OC/VOC per ton of sand, doubling factor provided by Elyria Foundry (0.022 x 2 = 0.044); and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104616]

h. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0104616]

g) Miscellaneous Requirements

(1) None.

2. F009, CL Blow-off Station

Operations, Property and/or Equipment Description:

Air lancing to pneumatically discharge sand from cores, controlled by a fabric filter (baghouse #21)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 02-5515)	Particulate matter (PM) emissions from the baghouse shall not exceed 0.01 grain per dscf and 1.11 pounds per hour.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-17-11	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping 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 baghouse and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence

or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-5515]

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range of 2.0 to 12.0 inches of water, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control

equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date the corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The range of the pressure drop across the baghouse shall be 2.0 to 12.0 inches of water, unless revisions are requested by the permittee and approved in writing by the Northeast District Office of the Ohio EPA. The permittee may request revisions to the permitted range for the pressure drop based upon information obtained during future testing that demonstrates compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-5515]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the baghouse that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-5515]

(2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-5515]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>:

PM emissions from the baghouse shall not exceed 0.01 grain per dscf and 1.11 pounds per hour.

<u>Applicable Compliance Method</u>:

Compliance shall be demonstrated 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).

[Authority for term: OAC rule 3745-17-03(B)(10), OAC rule 3745-77-07(C)(1), and PTI 02-5515]

b. <u>Emission Limitation</u>:

Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI 02-5515]

g) Miscellaneous Requirements

(1) None.

3. F010, BMM Pouring and Cooling

Operations, Property and/or Equipment Description:

BMM Shop Casting and Cooling (PWR - 14 tons per hour) controlled by a 30,000 acfm baghouse (Baghouse Number 11). This baghouse also controls the majority of P904, and parts (conveyor from sand muller to surge hopper, and surge hopper bin) of P905.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) (PTI P0105731)	Particulate matter/particulate matter less than 10 microns in diameter (PM/PM_{10}) emissions from the baghouse stack shall not exceed 0.003 grain per dscf, 0.77 pound per hour and 1.85 tons per year.* *Emissions are a summation of all units that are ducted to the baghouse. Fugitive particulate emissions shall not exceed 4.41 tons per year. Fugitive PM_{10} emissions shall not exceed 2.16 tons per year. Visible particulate emissions from the baghouse stack shall not exceed 10% opacity, as a 6-minute average, at any time. Visible fugitive particulate emissions shall not exceed 10% opacity as a 3-minute average. See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations required by this applicable rule are equivalent to and/or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)c.
d.	OAC rule 3745-17-07(B)	See b)(2)d.
e.	OAC rule 3745-17-08(B)	See b)(2)e.
f.	OAC rule 3745-17-07(A)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
g.	OAC rule 3745-17-11	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).

(2) Additional Terms and Conditions

a. 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.

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter less than 10 microns in diameter, particulate matter, and visible particulate emissions from this air

contaminant source since the calculated annual emission rates are each less than 10 tons per year.

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

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

c) Operational Restrictions

(1) The amount of iron processed through this emissions unit shall not exceed 14 tons per hour and 21,000 tons per year.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0105731]

(2) The maximum annual operating hours for this emissions unit shall not exceed 4800, based upon a rolling, 12-month summation of the operating hours. This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the hours of operation upon issuance of this permit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0105731]

d) Monitoring and/or Recordkeeping 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 baghouse and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that

no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective action that were taken to eliminate abnormal visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

(2) The permittee shall keep monthly records of:

a. the amount of iron, in tons, processed through this emissions unit;

b. the operating hours for each day;

c. the amount of iron, in tons, processed through this emissions unit per hour (a/b); and

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

(3) The permittee shall keep annual records of the amount of iron, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the baghouse that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

(2) The permittee shall submit annual deviation (excursion) reports that identify:

a. all exceedances of the rolling, 12-month restriction on the hours of operation for this emissions unit;

b. all exceedances of the 14 tons per hour iron production rate; and

c. all exceedance of the 21,000 tons per year iron production rate.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM/PM_{10} emissions from the baghouse stack shall not exceed 0.003 grain per dscf and 0.77 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated based upon an emission test performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

b. Emission Limitation:

PM/PM_{10} emissions from the baghouse stack shall not exceed 1.85 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

TPY = (ET x flow x 60 x H)/(7000 x 2000)

where:

TPY = emissions of PM, tons per year;

ET = results of emissions testing, grains/cf;

flow = flow rate from baghouse, cfm;

60 = conversion factor, minutes per hour;

H = emissions unit operating hours;

7000 = conversion factor, grains per pound; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

c. Emission Limitation:

Fugitive particulate emissions shall not exceed 4.41 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

E = (EF x T x (1 - CE))/2000

where:

E = emissions of fugitive particulate emissions, TPY;

EF = emission factor, 4.2 lbs PM/ton of iron from AP-42, Section 12.10 Gray Iron Foundries, version 1/95, Table 12.10-7, Pouring/Cooling (uncontrolled);

T = iron throughput, tons per year;

CE = capture efficiency of baghouse, assumed to be 90% (0.9); and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

d. Emission Limitation:

Fugitive PM_{10} emissions shall not exceed 2.16 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

E = (EF x T x (1 - CE))/2000

where:

E = emissions of fugitive particulate emissions, TPY;

EF = emission factor, 2.06 lbs PM_{10}/ton of iron from FIREDATABASE, Grey Iron Foundries, Casting Cooling;

T = iron throughput, tons per year;

CE = capture efficiency of baghouse, assumed to be 90% (0.9); and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

e. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 10% opacity, as a 6-minute average, at any time.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0105731]

f. Emission Limitation:

Visible fugitive particulate emissions shall not exceed 10% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0105731]

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

a. The emission testing shall be conducted within 180 days after the issuance or 180 days prior to the expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60, Appendix A, Methods 1 through 5; and

40 CFR Part 51, Appendix M, Method 201.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. 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 Ohio EPA Northeast District Office.

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

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

g. 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 Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

g) Miscellaneous Requirements

(1) None.

4. F011, BMM Shakeout and Sand System

Operations, Property and/or Equipment Description:

BMM Punchout and Shakeout, includes 6 sand conveyors, and 1 elevator bucket all controlled by a 62,000 cfm baghouse (Baghouse #23, Northwest). The baghouse also controls parts of P905 and other areas of the BMM.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) (PTI P0105731)	Particulate matter/particulate matter less than 10 microns in diameter (PM/PM_{10}) emissions from the baghouse stack shall not exceed 0.003 grain per dscf, 1.59 pounds per hour and 3.83 tons per year.* *Emissions are a summation of all units that are ducted to the baghouse. Fugitive particulate emissions shall not exceed 1.68 tons per year. Fugitive PM_{10} emissions shall not exceed 1.18 tons per year. Visible particulate emissions from the baghouse stack shall not exceed 10% opacity, as a 6-minute average, at any time. Visible fugitive particulate emissions shall not exceed 10% opacity as a 3-minute average. See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations required by this applicable rule are equivalent to and/or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)c.
d.	OAC rule 3745-17-07(B)	See b)(2)d.
e.	OAC rule 3745-17-08(B)	See b)(2)e.
f.	OAC rule 3745-17-07(A)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
g.	OAC rule 3745-17-11	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).

(2) Additional Terms and Conditions

a. 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.

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter less than 10 microns in diameter, particulate matter, and visible particulate emissions from this air

contaminant source since the calculated annual emission rates are each less than 10 tons per year.

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

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

c) Operational Restrictions

(1) The amount of iron processed through this emissions unit shall not exceed 14 tons per hour and 21,000 tons per year.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0105731]

(2) The maximum annual operating hours for this emissions unit shall not exceed 4800, based upon a rolling, 12-month summation of the operating hours. This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the hours of operation upon issuance of this permit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0105731]

d) Monitoring and/or Recordkeeping 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 baghouse and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that

no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective action that were taken to eliminate abnormal visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

(2) The permittee shall keep monthly records of:

a. the amount of iron, in tons, processed through this emissions unit;

b. the operating hours for each day;

c. the amount of iron, in tons, processed through this emissions unit per hour (a/b); and

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

(3) The permittee shall keep annual records of the amount of iron, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the baghouse that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

(2) The permittee shall submit annual deviation (excursion) reports that identify:

a. all exceedances of the rolling, 12-month restriction on the hours of operation for this emissions unit;

b. all exceedances of the 14 tons per hour iron production rate; and

c. all exceedance of the 21,000 tons per year iron production rate.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM/PM_{10} emissions from the baghouse stack shall not exceed 0.003 grain per dscf and 1.59 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated based upon an emission test performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

b. Emission Limitation:

PM/PM_{10} emissions from the baghouse stack shall not exceed 3.83 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

TPY = (ET x flow x 60 x H)/(7000 x 2000)

where:

TPY = emissions of PM, tons per year;

ET = results of emissions testing, grains/cf;

flow = flow rate from baghouse, cfm;

60 = conversion factor, minutes per hour;

H = emissions unit operating hours;

7000 = conversion factor, grains per pound; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

c. Emission Limitation:

Fugitive particulate emissions shall not exceed 1.68 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

E = (EF x T x (1 - CE))/2000

where:

E = emissions of fugitive particulate emissions, TPY;

EF = emission factor, 3.2 lbs PM/ton of iron from AP-42, Section 12.10 Gray Iron Foundries, version 1/95, Table 12.10-7, Shakeout (uncontrolled);

T = iron throughput, tons per year;

CE = capture efficiency of baghouse, assumed to be 95% (0.95); and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

d. Emission Limitation:

Fugitive PM_{10} emissions shall not exceed 1.18 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

E = (EF x T x (1 - CE))/2000

where:

E = emissions of fugitive particulate emissions, TPY;

EF = emission factor, 2.24 lbs PM_{10}/ton of iron from FIREDATABASE, Grey Iron Foundries, Casting Shakeout;

T = iron throughput, tons per year;

CE = capture efficiency of baghouse, assumed to be 95% (0.95); and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

e. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 10% opacity, as a 6-minute average, at any time.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0105731]

f. Emission Limitation:

Visible fugitive particulate emissions shall not exceed 10% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0105731]

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

a. The emission testing shall be conducted within 180 days after the issuance or 180 days prior to the expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60, Appendix A, Methods 1 through 5; and

40 CFR Part 51, Appendix M, Method 201.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. 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 Ohio EPA Northeast District Office.

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

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

g. 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 Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

g) Miscellaneous Requirements

(1) None.

5. F016, #2 Core Dept. Mixer- Palmer

Operations, Property and/or Equipment Description:

2 Core Department Mixer, Core Sand Mixer (Palmer) and two sand bins (2 ton capacity chromite and 1.5 ton capacity silica)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) OAC rule 3745-31-05(E) (PTI P0105001)	Particulate matter (PM) emissions from the baghouse shall not exceed 0.10 pound per hour and 0.03 ton per year. [See b)(2)b.] Particulate matter less than 10 microns in diameter (PM_{10}) emissions from the baghouse shall not exceed 0.05 pound per hour and 0.02 ton per year. [See b)(2)b.] Fugitive particulate emissions shall not exceed 0.58 ton per year. Organic compound (OC)/volatile organic compound (VOC) emissions shall not exceed 0.27 pound per hour and 0.08 ton per year. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations required by this applicable rule are equivalent to and/or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)c.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)a and b)(2)d.
d.	OAC rule 3745-17-07(B)	See b)(2)e.
e.	OAC rule 3745-17-08(B)	See b)(2)f.
f.	OAC rule 3745-17-11	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
g.	OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

(2) Additional Terms and Conditions

a. This permit for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment), as provided by the permittee, for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

i. the sand bins that serve this emissions unit shall be vented to a baghouse.

b. The baghouse that currently controls this emissions unit also controls other emissions units. The emission limitations, stated above, only apply to this emission unit's contribution to the total baghouse emissions.

c. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

d. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter, particulate matter less than 10 microns in diameter and volatile organic compounds from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

e. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).

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

c) Operational Restrictions

(1) The amount of sand processed through this emissions unit shall not exceed 3,300 tons per year.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0105001]

d) Monitoring and/or Recordkeeping 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 baghouse to which the bins are vented and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105001]

(2) The permittee shall keep daily records of the amount of sand, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105001]

(3) The permittee shall keep annual records of the amount of sand, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105001]

(4) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range of 4.0 to 8.5 inches of water, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date the corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range of the pressure drop across the baghouse shall be 4.0 to 8.5 inches of water, unless revisions are requested by the permittee and approved in writing by the Northeast District Office of the Ohio EPA. The permittee may request revisions to the permitted range for the pressure drop based upon information obtained during future testing that demonstrates compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105001]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the baghouse that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105001]

(2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in “a” (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit..

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105001]

(3) The permittee shall submit annual deviation (excursion) reports that identify if the annual sand usage exceeded 3,300 tons.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105001]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM emissions from the baghouse shall not exceed 0.10 pound per hour.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

Esh = 0.33 x TPH x (1 - FE)

where:

Esh = emissions from stack, pound per hour;

0.33 = emission factor from RACM, page 2-219; Core and Mold Sand Unloading and Storage - 0.03 lb/ton sand unloaded, plus Core Sand and Binder Mixing - 0.3 lb/ton sand mixed (0.03 + 0.3 = 0.33)

TPH = tons of sand processed through emissions unit, maximum capacity of 6.0 tons per hour; and

FE = baghouse efficiency, assumed to be 95%, 0.95.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105001]

b. Emission Limitation:

PM emissions from the baghouse shall not exceed 0.03 ton per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

Esy = [0.33 x TPY x (1 - FE)]/2000

where:

Esy = emissions from stack, ton per year;

0.33 = emission factor from RACM, page 2-219; Core and Mold Sand Unloading and Storage - 0.03 lb/ton sand unloaded, plus Core Sand and Binder Mixing - 0.3 lb/ton sand mixed (0.03 + 0.3 = 0.33);

TPY = tons of sand processed through emissions unit, requested capacity of 3,300 tons per year;

FE = baghouse efficiency, assumed to be 95%, 0.95; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105001]

c. Emission Limitation:

PM_{10} emissions from the baghouse shall not exceed 0.05 pound per hour and 0.02 ton per year.

Applicable Compliance Method:

PM_{10} emissions are assumed to be 50% of PM emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105001]

d. Emission Limitation:

Fugitive particulate emissions shall not exceed 0.58 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Ef = [(0.35 x TPY]/2000

where:

Ef = fugitive emissions, tons per year;

0.35 = emission factor from RACM page 2-219 for Core Making, pound of PM per ton of core produced;

TPY = tons of sand processed through emissions unit, requested capacity of 3,300 tons per year; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105001]

e. Emission Limitation:

OC/VOC emissions shall not exceed 0.27 pound per hour.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

E = TPH x EF

where:

E = emissions of OC/VOC, pounds per hour;

TPH = throughput of sand, in tons, maximum capacity of 6.0 tons per hour; and

EF = emission factor from resin manufacturer indicating 0.022 lb OC/VOC per ton of sand, doubling factor provided by Elyria Foundry (0.022 x 2 = 0.044).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105001]

f. Emission Limitation:

OC/VOC emissions shall not exceed 0.08 ton per hour.

Applicable Compliance Method:

Compliance with the annual sand usage limitation of 3,300 tons is sufficient to demonstrate compliance. Or compliance can be demonstrated by using the following equation:

E = [TPY x EF]/2000

where:

E = emissions of OC/VOC, tons per year;

TPY = throughput of sand, in tons, requested capacity of 3,300 tons per year;

EF = emission factor from resin manufacturer indicating 0.022 lb OC/VOC per ton of sand, doubling factor provided by Elyria Foundry (0.022 x 2 = 0.044); and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105001]

g. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0105001]

g) Miscellaneous Requirements

(1) None.

6. F021, Foundry #2 Self-managed Mixer/ EF1000

Operations, Property and/or Equipment Description:

Foundry Number 2 Self Managed Mixer (PWR - 30 tons per hour, 495 tons per day, 98,855 tons per year) for Mold Making Operations. Includes Sand bin atop Mixer. Sand bin is ducted to a baghouse (Baghouse # 13) Elyria Foundry identifies this operation as (EF1000).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) OAC rule 3745-31-05(E) (PTI P0104634)	Particulate matter (PM) emissions from the baghouse shall not exceed 1.5 pounds per hour and 2.47 tons per year. Particulate matter less than 10 microns in diameter (PM_{10}) emissions from the baghouse shall not exceed 0.75 pound per hour and 1.24 tons per year. Fugitive particulate emissions shall not exceed 1.5 tons per year. Organic compound (OC)/volatile organic compound (VOC) emissions shall not exceed 31.7 pounds per day and 2.2 tons per year. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations required by this applicable rule are equivalent to and/or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)a and b)(2)c.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-08(B)	The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).
e.	OAC rule 3745-17-07(B)	This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
f.	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
g.	OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

(2) Additional Terms and Conditions

a. This permit for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment), as provided by the permittee, for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

i. the sand bin that serves this emissions unit shall be vented to a baghouse.

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter, particulate matter less than 10 microns in diameter and volatile organic compounds from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

c) Operational Restrictions

(1) The amount of sand processed through this emissions unit shall not exceed 98,855 tons per year.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0104634]

d) Monitoring and/or Recordkeeping 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 baghouse that the bin is vented and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104634]

(2) The permittee shall keep monthly records of the amount of sand, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104634]

(3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range of 4.0 to 8.5 inches of water, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date the corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range of the pressure drop across the baghouse shall be 4.0 to 8.5 inches of water, unless revisions are requested by the permittee and approved in writing by the Northeast District Office of the Ohio EPA. The permittee may request revisions to the permitted range for the pressure drop based upon information obtained during future testing that demonstrates compliance with the allowable particulate emission rate for the controlled

emissions unit(s). In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104634]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the baghouse that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104634]

(2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in “a” (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in “a” where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104634]

(3) The permittee shall submit annual deviation (excursion) reports that identify if the annual sand usage exceeded 98,855 tons.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104634]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM emissions from the baghouse shall not exceed 1.5 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Esh = [(1.3/1.3) x TPH x (1 - FE)]

where:

Esh = emissions from stack, pound per hour;

1.3 = emission factor from RACM page 2-219 for Mold Sand Preparation, pound of PM per ton of metal;

TPH = tons of sand processed through emissions unit, maximum capacity of 30 tons per hour;

FE = baghouse efficiency, assumed to be 95%, 0.95; and

1.3 = minimum sand to metal ratio, ton metal per ton sand.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104634]

b. Emission Limitation:

PM emissions from the baghouse shall not exceed 2.47 tons per year

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Esy = [(1.3/1.3) x TPY x (1 - FE)]/2000

where:

Esy = emissions from stack, ton per year;

1.3 = emission factor from RACM page 2-219 for Mold Sand Preparation, pound of PM per ton of metal;

TPY = tons of sand processed through emissions unit, maximum capacity of 98,855 tons per year;

FE = baghouse efficiency, assumed to be 95%, 0.95;

1.3 = minimum sand to metal ratio, ton metal per ton sand; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104634]

c. Emission Limitation:

PM_{10} emissions from the baghouse shall not exceed 0.75 pound per hour and 1.24 tons per year.

Applicable Compliance Method:

PM_{10} emissions are assumed to be 50% of PM emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104634]

d. Emission Limitation:

Fugitive particulate emissions shall not exceed 1.5 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Ef = [(0.04/1.3) x TPY]/2000

where:

Ef = fugitive emissions, tons per year;

0.04 = emission factor from RACM page 2-219 for Mold Making, pound of PM per ton of metal;

1.3 = minimum sand to metal ratio, ton metal per ton sand;

TPY = tons of sand processed through emissions unit, maximum capacity of 98,855 tons per year; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104634]

e. Emission Limitation:

OC/VOC emissions shall not exceed 31.7 pounds per day.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = TPD x EF

where:

E = emissions of OC/VOC, pounds per day;

TPD = throughput of sand, in tons, maximum capacity of 720 tons per day; and

EF = emission factor provided by resin manufacturer, 0.044 lb OC/VOC per ton of sand.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104634]

f. Emission Limitation:

OC/VOC emissions shall not exceed 2.2 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = [TPY x EF]/2000

where:

E = emissions of OC/VOC, tons per year;

TPY = throughput of sand, in tons, maximum capacity of 98,855 tons per year;

EF = emission factor provided by resin manufacturer, 0.044 lb OC,VOC per ton of sand; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104634]

g. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0104634]

g) Miscellaneous Requirements

(1) None.

7. F022, #2 Core Dept Palmer M200 Sand Mixer

Operations, Property and/or Equipment Description:

#2 Core Department Mixer, Core sand mixer (Palmer M200) and two sand bins (2 ton capacity chromite and 1.5 ton capacity silica)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) OAC rule 3745-31-05(E) (PTI P0104640)	Particulate matter (PM) emissions from the baghouse shall not exceed 0.11 pound per hour and 0.03 ton per year. [See b)(2)b.] Particulate matter less than 10 microns in diameter (PM_{10}) emissions from the baghouse shall not exceed 0.06 pound per hour and 0.02 ton per year. [See b)(2)b.] Fugitive particulate emissions shall not exceed 0.71 ton per year. Organic compound (OC)/volatile organic compound (VOC) emissions shall not exceed 7.72 pounds per hour, 40 pounds per day and 2.37 tons per year. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations required by this applicable rule are equivalent to and/or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)c.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)a and b)(2)d.
d.	OAC rule 3745-17-07(B)	See b)(2)e.
e.	OAC rule 3745-17-08(B)	See b)(2)f.
f.	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
g.	OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

(2) Additional Terms and Conditions

a. This permit for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment), as provided by the permittee, for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

i. the sand bins that serve this emissions unit shall be vented to a baghouse.

b. The baghouse that currently controls this emissions unit also controls other emissions units. The emission limitations, stated above, only apply to this emission unit's contribution to the total baghouse emissions.

c. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

d. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter, particulate matter less than 10 microns in diameter and volatile organic compounds from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

e. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).

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

c) Operational Restrictions

(1) The amount of sand processed through this emissions unit shall not exceed 34.18 tons per day and 4,050 tons per year.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0104640]

d) Monitoring and/or Recordkeeping 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 baghouse to which the bins are vented and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104640]

(2) The permittee shall keep daily records of the amount of sand, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104640]

(3) The permittee shall keep annual records of the amount of sand, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104640]

(4) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range of 4.0 to 8.5 inches of water, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date the corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range of the pressure drop across the baghouse shall be 4.0 to 8.5 inches of water, unless revisions are requested by the permittee and approved in writing by the Northeast District Office of the Ohio EPA. The permittee may request revisions to the permitted range for the pressure drop based upon information obtained during future testing that demonstrates compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104640]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the baghouse that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104640]

(2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in “a” (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104640]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify each day when the daily sand usage exceeded 34.18 tons.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104640]

(4) The permittee shall submit annual deviation (excursion) reports that identify if the annual sand usage exceeded 4,050 tons.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104640]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM emissions from the baghouse shall not exceed 0.11 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Esh = 0.33 x TPH x (1 - FE)

where:

Esh = emissions from stack, pound per hour;

0.33 = emission factor from RACM, page 2-219; Core and Mold Sand Unloading and Storage - 0.03 lb/ton sand unloaded, plus Core Sand and Binder Mixing - 0.3 lb/ton sand mixed (0.03 + 0.3 = 0.33);

TPH = tons of sand processed through emissions unit, maximum capacity of 6.60 tons per hour; and

FE = baghouse efficiency, assumed to be 95%, 0.95.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104640]

b. Emission Limitation:

PM emissions from the baghouse shall not exceed 0.03 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Esy = [0.33 x TPY x (1 - FE)]/2000

where:

Esy = emissions from stack, ton per year;

0.33 = emission factor from RACM, page 2-219; Core and Mold Sand Unloading and Storage - 0.03 lb/ton sand unloaded, plus Core Sand and Binder Mixing - 0.3 lb/ton sand mixed (0.03 + 0.3 = 0.33);

TPY =tons of sand processed through emissions unit, maximum capacity of 4,050 tons per year;

FE = baghouse efficiency, assumed to be 95%, 0.95; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104640]

c. Emission Limitation:

PM_{10} emissions from the baghouse shall not exceed 0.06 pound per hour and 0.02 ton per year.

Applicable Compliance Method:

PM_{10} emissions are assumed to be 50% of PM emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104640]

d. Emission Limitation:

Fugitive particulate emissions shall not exceed 0.71 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Ef = [(0.35 x TPY]/2000

where:

Ef = fugitive emissions, tons per year;

0.35 = emission factor from RACM page 2-219 for Core Making, pound of PM per ton of core produced;

TPY =tons of sand processed through emissions unit, maximum capacity of 4,050 tons per year; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104640]

e. Emission Limitation:

OC/VOC emissions shall not exceed 7.72 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = TPH x EF

where:

E = emissions of OC/VOC, pounds per hour;

TPH = throughput of sand, in tons, maximum capacity of 6.60 tons per hour; and

EF = emission factor from Ohio Cast Metal Association (OCMA) Agreement dated 16 February 1998 - page 2 - phenolic urethane no-bake, 1.17 lb OC/VOC per ton of sand.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104640]

f. Emission Limitation:

OC/VOC emissions shall not exceed 40 pounds per day.

Applicable Compliance Method:

Compliance with the daily sand usage limitation of 34.18 tons is sufficient to demonstrate compliance. Or by using the following equation:

E = TPD x EF

where:

E = emissions of organic compounds, pounds per day;

TPD = throughput of sand, tons per day, maximum capacity of 34.18 tons per day; and

EF = emission factor provided from OCMA Agreement - page 2 - phenolic urethane no-bake, 1.17 lb OC/VOC per ton of sand.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104640]

g. Emission Limitation:

OC/VOC emissions shall not exceed 2.37 tons per hour.

Applicable Compliance Method:

Compliance with the annual sand usage limitation of 4,050 tons is sufficient to demonstrate compliance or by using the following equation:

E = [TPY x EF]/2000

where:

E = emissions of OC/VOC, tons per year;

TPY = throughput of sand, in tons, maximum capacity of 4,050 tons per year;

EF = emission factor provided from OCMA Agreement - page 2 - phenolic urethane no-bake, 1.17 lb OC/VOC per ton of sand; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104640]

h. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0104640]

g) Miscellaneous Requirements

(1) None.

8. F023, Foundry #1 CE Mixer

Operations, Property and/or Equipment Description:

Continuous Sand Mixer for Molds located in #1 Foundry also has a 60 ton sand bin (East Bin) and a 70 ton sand bin (West Bin) both bins are vented through bin vent filters. Furan No-Bake and Phenolic Urethane No-bake are used.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) OAC rule 3745-31-05(E) (PTI P0109689)	Particulate matter (PM) emissions from the bin vent filters shall not exceed 0.36 pound per hour and 0.21 ton per year Particulate matter less than 10 microns in diameter (PM_{10}) emissions from the bin vent filters shall not exceed 0.18 pound per hour and 0.11 ton per year. Fugitive PM emissions from mold making shall not exceed 0.65 ton per year. Fugitive PM_{10} emissions from mold making shall not exceed 0.33 ton per year. Organic compound (OC)/volatile organic compound (VOC) emissions shall not exceed 38.0 pounds per day and 0.93 ton per year. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations required by this applicable rule are equivalent to and/or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)b.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)a and b)(2)c.
d.	OAC rule 3745-17-07(B)	See b)(2)d.
e.	OAC rule 3745-17-08(B)	See b)(2)e.

(2) Additional Terms and Conditions

a. This permit for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment), as provided by the permittee, for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

The sand binsthat serve this emissions unit shall be vented to bin vent filters.

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter, particulate matter less than 10 microns in diameter and volatile organic compounds from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

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

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

c) Operational Restrictions

(1) The amount of sand processed through this emissions unit shall not exceed 42,345 tons per year.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0109689]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109689]

(2) The permittee shall keep monthly records of the amount of sand, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109689]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

b. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109689]

(2) The permittee shall submit annual deviation (excursion) reports that identify if the annual sand usage exceeded 42,345 tons.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109689]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM emissions from the bin vent filters shall not exceed 0.36 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Esh = [(1.3/1.3) x TPH x (1 - FE)]

where:

Esh = emissions from bin vent filters, pound per hour;

1.3 = emission factor from RACM page 2-219 for Mold Sand Preparation, pound of PM per ton of metal;

TPH = tons of sand processed through emissions unit, maximum capacity of 36 tons per hour;

FE = bin vent filterefficiency, assumed to be 99%, 0.99; and

1.3 = minimum sand to metal ratio, ton metal per ton sand.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109689]

b. Emission Limitation:

PM emissions from the bin vent filtersshall not exceed 0.21 ton per year

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Esy = [(1.3/1.3) x TPY x (1 - FE)]/2000

where:

Esy = emissions from bin vent filters, ton per year;

1.3 = emission factor from RACM page 2-219 for Mold Sand Preparation, pound of PM per ton of metal;

TPY = tons of sand processed through emissions unit, maximum capacity of 42,345 tons per year;

FE = bin vent filtersefficiency, assumed to be 99%, 0.99;

1.3 = minimum sand to metal ratio, ton metal per ton sand; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109689]

c. Emission Limitation:

PM_{10} emissions from the bin vent filtersshall not exceed 0.18 pound per hour and 0.11 ton per year.

Applicable Compliance Method:

PM_{10} emissions are assumed to be 50% of PM emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109689]

d. Emission Limitation:

Fugitive PM emissions shall not exceed 0.65 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Ef = [(0.04/1.3) x TPY]/2000

where:

Ef = fugitive emissions, tons per year;

0.04 = emission factor from RACM page 2-219 for Mold Making, pound of PM per ton of metal;

1.3 = minimum sand to metal ratio, ton metal per ton sand;

TPY = tons of sand processed through emissions unit, maximum capacity of 42,345 tons per year; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109689]

e. Emission Limitation:

Fugitive PM_{10} emissions shall not exceed 0.33 ton per year.

Applicable Compliance Method:

Fugitive PM_{10} emissions are assumed to be 50% of fugitive PM emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109689]

f. Emission Limitation:

OC/VOC emissions shall not exceed 38.0 pounds per day.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = TPD x EF

where:

E = emissions of OC/VOC, pounds per day;

TPD = throughput of sand, in tons, maximum capacity of 864 tons per day; and

EF = emission factor provided by resin manufacturer, 0.044 lb OC/VOC per ton of sand.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109689]

g. Emission Limitation:

OC/VOC emissions shall not exceed 0.93 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = [TPY x EF]/2000

where:

E = emissions of OC/VOC, tons per year;

TPY = throughput of sand, in tons, maximum capacity of 42,345 tons per year;

EF = emission factor provided by resin manufacturer, 0.044 lb OC,VOC per ton of sand; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0109689]

g) Miscellaneous Requirements

(1) None.

9. F025, #1 Core Room Mixer #T-350

Operations, Property and/or Equipment Description:

Sand/binder mixing process.

Tinker Omega, Core Room Mixer #T-350 for Cores located in #1 Core Room, a 5-ton sand bin that is fed by and vents to a 65-ton sand bin. The 65-ton sand bin is equipped with bin filters. Using Furan No-Bake.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) (PTI P0113394)	Particulate matter (PM) emissions from the bin filter shall not exceed 0.02 pound per hour and 0.01 ton per year. Particulate matter less than 10 microns in diameter (PM_{10}) emissions from the bin filter shall not exceed 0.01 pound per hour and 0.003 ton per year. Fugitive PM emissions shall not exceed 0.58 ton per year. Fugitive PM_{10} emissions shall not exceed 0.29 ton per year. Organic compound (OC)/volatile organic compound (VOC) emissions shall not exceed 0.47 pound per hour and 0.13 ton per year.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations required by this applicable rule are equivalent to and/or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)b.
d.	OAC rule 3745-17-07(B)	See b)(2)c.
e.	OAC rule 3745-17-08(B)	See b)(2)d.
f.	OAC rule 3745-17-11	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
g.	OAC rule 3745-17-07(A)	Visible particulate emissions from the bin filter shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter, particulate matter less than 10 microns in diameter and volatile organic compounds from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

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

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

c) Operational Restrictions

(1) The amount of sand processed through this emissions unit shall not exceed 3,300 tons per year.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0113394]

(2) The amount of combined binder and activator processed through this emissions unit shall not exceed 33 tons per year.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0113394]

(3) The permittee shall vent the sand bins through a bin filter that serves this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0113394]

d) Monitoring and/or Recordkeeping 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 bin filter and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

(2) The permittee shall keep daily records of the amount of sand, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

(3) The permittee shall keep annual records of the amount of sand, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

(4) The permittee shall keep annual records of the amount of binder/activator, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the bin filter that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

(2) The permittee shall submit annual deviation (excursion) reports that identify if the annual sand usage exceeded 3,300 tons.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

(3) The permittee shall submit annual deviation (excursion) reports that identify if the combined annual binder and activator usage exceeded 33 tons.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM emissions from the bin filter shall not exceed 0.02 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Esh = 0.33 x TPH x (1 - FE)

where:

Esh = emissions from stack, pound per hour;

0.33 = emission factor from RACM, page 2-219; Core and Mold Sand Unloading and Storage - 0.03 lb/ton sand unloaded, plus Core Sand and Binder Mixing - 0.3 lb/ton sand mixed (0.03 + 0.3 = 0.33);

TPH = tons of sand processed through emissions unit, maximum capacity of 6.0 tons per hour; and

FE = bin filter efficiency, assumed to be 99%, 0.99.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

b. Emission Limitation:

PM emissions from the bin filter shall not exceed 0.01 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Esy = [0.33 x TPY x (1 - FE)]/2000

where:

Esy = emissions from bin filter, ton per year;

0.33 = emission factor from RACM, page 2-219; Core and Mold Sand Unloading and Storage - 0.03 lb/ton sand unloaded, plus Core Sand and Binder Mixing - 0.3 lb/ton sand mixed (0.03 + 0.3 = 0.33);

TPY = tons of sand processed through emissions unit, requested capacity of 3,300 tons per year;

FE = bin filter efficiency, assumed to be 99%, 0.99; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

c. Emission Limitation:

PM_{10} emissions from the bin filter shall not exceed 0.01 pound per hour and 0.003 ton per year.

Applicable Compliance Method:

PM_{10} emissions are assumed to be 50% of PM emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

d. Emission Limitation:

Fugitive PM emissions shall not exceed 0.58 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Ef = [(0.35 x TPY]/2000

where:

Ef = fugitive emissions, tons per year;

0.35 = emission factor from RACM page 2-219 for Core Making, pound of PM per ton of core produced;

TPY = tons of sand processed through emissions unit, requested capacity of 3,300 tons per year; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

e. Emission Limitation:

OC/VOC emissions shall not exceed 0.47 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = PPH x EF

where:

E = emissions of OC/VOC, pounds per hour;

PPH = throughput of binder/resin, in pounds, maximum capacity of 121.44 pounds per hour (binder usage is based on a 1.012% of sand usage)

EF = emission factor from "Casting Emission Reduction Program (CERP); Product Test; HA International Enviroset 22 Furan No-Bake; Mix/Make/Cure; Storage; Pouring/Cooling/Shakeout; Technikon 1411-113 GI, March 2005." Furan No-Bake - 0.0039 pound OC/VOC per pound of binder.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

f. Emission Limitation:

OC/VOC emissions shall not exceed 0.13 ton per year.

Applicable Compliance Method:

Compliance with the annual binder/resin usage limitation of 33 tons is sufficient to demonstrate compliance or by using the following equation:

E = [TPY x EF]/2000

where:

E = emissions of OC/VOC, tons per year;

TPY = throughput of binder/resin, in tons, requested capacity of 33 tons per year;

EF = emission factor from "Casting Emission Reduction Program (CERP); Product Test; HA International Enviroset 22 Furan No-Bake; Mix/Make/Cure; Storage; Pouring/Cooling/Shakeout; Technikon 1411-113 GI, March 2005." Furan No-Bake - 0.0039 pound OC/VOC per pound of binder.

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

g. Emission Limitation:

Visible particulate emissions from the bin filter shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0113394]

h. Emission Limitation:

Fugitive PM_{10} emissions shall not exceed 0.29 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Ef = [(0.35 x TPY)/2000] x 0.50

where:

Ef = fugitive emissions, tons per year;

0.35 = emission factor from RACM page 2-219 for Core Making, pound of PM per ton of core produced;

TPY = tons of sand processed through emissions unit, requested capacity of 3,300 tons per year;

2000 = conversion factor, pounds per ton; and

0.5 = assumes 50% of PM emissions is PM_{10} emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

g) Miscellaneous Requirements

(1) None.

10. F026, #1 Core Room Mixer #T-50

Operations, Property and/or Equipment Description:

Sand/binder mixing process.

Tinker Omega, Core Room Mixer #T-50 for Cores located in #1 Core Room, a 2.25-ton sand bin that is fed by and vents to a 65-ton sand bin. The 65-ton sand bin is equipped with bin filters. Using Furan No-Bake.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) (PTI P0113394)	Particulate matter (PM) emissions from the bin filter shall not exceed 0.01 pound per hour and 0.001 ton per year. Particulate matter less than 10 microns in diameter (PM_{10}) emissions from the bin filter shall not exceed 0.01 pound per hour and 0.001 ton per year. Fugitive PM emissions shall not exceed 0.10 ton per year. Fugitive PM_{10} emissions shall not exceed 0.05 ton per year. Organic compound (OC)/volatile organic compound (VOC) emissions shall not exceed 0.12 pound per hour and 0.02 ton per year.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations required by this applicable rule are equivalent to and/or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)b.
d.	OAC rule 3745-17-07(B)	See b)(2)c.
e.	OAC rule 3745-17-08(B)	See b)(2)d.
f.	OAC rule 3745-17-11	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
g.	OAC rule 3745-17-07(A)	Visible particulate emissions from the bin filter shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter, particulate matter less than 10 microns in diameter and volatile organic compounds from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

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

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

c) Operational Restrictions

(1) The amount of sand processed through this emissions unit shall not exceed 550 tons per year.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0113394]

(2) The amount of combined binder and activator processed through this emissions unit shall not exceed 6 tons per year.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0113394]

(3) The permittee shall vent the sand bins through a bin filter that serves this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0113394]

d) Monitoring and/or Recordkeeping 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 bin filter and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

(2) The permittee shall keep daily records of the amount of sand, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

(3) The permittee shall keep annual records of the amount of sand, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

(4) The permittee shall keep annual records of the amount of binder/activator, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the bin filter that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

(2) The permittee shall submit annual deviation (excursion) reports that identify if the annual sand usage exceeded 550 tons.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

(3) The permittee shall submit annual deviation (excursion) reports that identify if the combined annual binder and activator usage exceeded 6 tons.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM emissions from the bin filter shall not exceed 0.01 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Esh = 0.33 x TPH x (1 - FE)

where:

Esh = emissions from stack, pound per hour;

0.33 = emission factor from RACM, page 2-219; Core and Mold Sand Unloading and Storage - 0.03 lb/ton sand unloaded, plus Core Sand and Binder Mixing - 0.3 lb/ton sand mixed (0.03 + 0.3 = 0.33);

TPH = tons of sand processed through emissions unit, maximum capacity of 1.5 tons per hour; and

FE = bin filter efficiency, assumed to be 99%, 0.99.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

b. Emission Limitation:

PM emissions from the bin filter shall not exceed 0.001 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Esy = [0.33 x TPY x (1 - FE)]/2000

where:

Esy = emissions from bin filter, ton per year;

0.33 = emission factor from RACM, page 2-219; Core and Mold Sand Unloading and Storage - 0.03 lb/ton sand unloaded, plus Core Sand and Binder Mixing - 0.3 lb/ton sand mixed (0.03 + 0.3 = 0.33);

TPY = tons of sand processed through emissions unit, requested capacity of 550 tons per year;

FE = bin filter efficiency, assumed to be 99%, 0.99; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

c. Emission Limitation:

PM_{10} emissions from the bin filter shall not exceed 0.01 pound per hour and 0.001 ton per year.

Applicable Compliance Method:

PM_{10} emissions are assumed to be 50% of PM emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

d. Emission Limitation:

Fugitive PM emissions shall not exceed 0.10 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Ef = [(0.35 x TPY]/2000

where:

Ef = fugitive emissions, tons per year;

0.35 = emission factor from RACM page 2-219 for Core Making, pound of PM per ton of core produced;

TPY = tons of sand processed through emissions unit, requested capacity of 550 tons per year; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

e. Emission Limitation:

OC/VOC emissions shall not exceed 0.12 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = PPH x EF

where:

E = emissions of OC/VOC, pounds per hour;

PPH = throughput of binder/resin, in pounds, maximum capacity of 30.36 pounds per hour (binder usage is based on a 1.012% of sand usage)

EF = emission factor from "Casting Emission Reduction Program (CERP); Product Test; HA International Enviroset 22 Furan No-Bake; Mix/Make/Cure; Storage; Pouring/Cooling/Shakeout; Technikon 1411-113 GI, March 2005." Furan No-Bake - 0.0039 pound OC/VOC per pound of binder.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

f. Emission Limitation:

OC/VOC emissions shall not exceed 0.02 ton per year.

Applicable Compliance Method:

Compliance with the annual binder/resin usage limitation of 6 tons is sufficient to demonstrate compliance or by using the following equation:

E = [TPY x EF]/2000

where:

E = emissions of OC/VOC, tons per year;

TPY = throughput of binder/resin, in tons, requested capacity of 6 tons per year;

EF = emission factor from "Casting Emission Reduction Program (CERP); Product Test; HA International Enviroset 22 Furan No-Bake; Mix/Make/Cure; Storage; Pouring/Cooling/Shakeout; Technikon 1411-113 GI, March 2005." Furan No-Bake - 0.0039 pound OC/VOC per pound of binder.

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

g. Emission Limitation:

Visible particulate emissions from the bin filter shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0113394]

h. Emission Limitation:

Fugitive PM_{10} emissions shall not exceed 0.05 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Ef = [(0.35 x TPY)/2000] x 0.50

where:

Ef = fugitive emissions, tons per year;

0.35 = emission factor from RACM page 2-219 for Core Making, pound of PM per ton of core produced;

TPY = tons of sand processed through emissions unit, requested capacity of 550 tons per year;

2000 = conversion factor, pounds per ton; and

0.5 = assumes 50% of PM emissions is PM_{10} emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

g) Miscellaneous Requirements

(1) None.

11. F027, #1 Core Room Mixer #T-125

Operations, Property and/or Equipment Description:

Sand/binder mixing process.

Tinker Omega, Core Room Mixer #T-125 for Cores located in #1 Core Room, a 2.5-ton sand bin that is fed by and vents to a 65-ton sand bin. The 65-ton sand bin is equipped with bin filters. Using Phenolic Urethane No-Bake.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) (PTI P0113394)	Particulate matter (PM) emissions from the bin filter shall not exceed 0.02 pound per hour and 0.01 ton per year. Particulate matter less than 10 microns in diameter (PM_{10}) emissions from the bin filter shall not exceed 0.01 pound per hour and 0.01 ton per year. Fugitive PM emissions shall not exceed 1.08 ton per year. Fugitive PM_{10} emissions shall not exceed 0.54 ton per year. Organic compound (OC)/volatile organic compound (VOC) emissions shall not exceed 5.27 pounds per hour and 3.62 tons per year.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations required by this applicable rule are equivalent to and/or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)b.
d.	OAC rule 3745-17-07(B)	See b)(2)c.
e.	OAC rule 3745-17-08(B)	See b)(2)d.
f.	OAC rule 3745-17-11	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
g.	OAC rule 3745-17-07(A)	Visible particulate emissions from the bin filter shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter, particulate matter less than 10 microns in diameter and volatile organic compounds from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

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

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

c) Operational Restrictions

(1) The amount of sand processed through this emissions unit shall not exceed 6,180 tons per year.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0113394]

(2) The amount of combined binder and activator processed through this emissions unit shall not exceed 63 tons per year.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0113394]

(3) The permittee shall vent the sand bins through a bin filter that serves this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0113394]

d) Monitoring and/or Recordkeeping 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 bin filter and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

(2) The permittee shall keep daily records of the amount of sand, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

(3) The permittee shall keep annual records of the amount of sand, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

(4) The permittee shall keep annual records of the amount of binder/activator, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the bin filter that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

(2) The permittee shall submit annual deviation (excursion) reports that identify if the annual sand usage exceeded 6,180 tons.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

(3) The permittee shall submit annual deviation (excursion) reports that identify if the combined annual binder and activator usage exceeded 63 tons.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM emissions from the bin filter shall not exceed 0.02 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Esh = 0.33 x TPH x (1 - FE)

where:

Esh = emissions from stack, pound per hour;

0.33 = emission factor from RACM, page 2-219; Core and Mold Sand Unloading and Storage - 0.03 lb/ton sand unloaded, plus Core Sand and Binder Mixing - 0.3 lb/ton sand mixed (0.03 + 0.3 = 0.33);

TPH = tons of sand processed through emissions unit, maximum capacity of 4.5 tons per hour; and

FE = bin filter efficiency, assumed to be 99%, 0.99.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

b. Emission Limitation:

PM emissions from the bin filter shall not exceed 0.01 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Esy = [0.33 x TPY x (1 - FE)]/2000

where:

Esy = emissions from bin filter, ton per year;

0.33 = emission factor from RACM, page 2-219; Core and Mold Sand Unloading and Storage - 0.03 lb/ton sand unloaded, plus Core Sand and Binder Mixing - 0.3 lb/ton sand mixed (0.03 + 0.3 = 0.33);

TPY = tons of sand processed through emissions unit, requested capacity of 6,180 tons per year;

FE = bin filter efficiency, assumed to be 99%, 0.99; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

c. Emission Limitation:

PM_{10} emissions from the bin filter shall not exceed 0.01 pound per hour and 0.003 ton per year.

Applicable Compliance Method:

PM_{10} emissions are assumed to be 50% of PM emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

d. Emission Limitation:

Fugitive PM emissions shall not exceed 1.08 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Ef = [(0.35 x TPY]/2000

where:

Ef = fugitive emissions, tons per year;

0.35 = emission factor from RACM page 2-219 for Core Making, pound of PM per ton of core produced;

TPY = tons of sand processed through emissions unit, requested capacity of 6,180 tons per year; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

e. Emission Limitation:

OC/VOC emissions shall not exceed 5.27 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = TPH x EF

where:

E = emissions of OC/VOC, pounds per hour;

TPH = throughput of sand, in tons, maximum capacity of 4.5 tons per hour; and

EF = emission factor from Ohio Cast Metal Association (OCMA) Agreement dated 16 February 1998 - page 2 - phenolic urethane no-bake, 1.17 lb OC/VOC per ton of sand.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

f. Emission Limitation:

OC/VOC emissions shall not exceed 3.62 tons per year.

Applicable Compliance Method:

Compliance with the annual sand usage limitation of 6,180 tons is sufficient to demonstrate compliance or by using the following equation:

E = [TPY x EF]/2000

where:

E = emissions of OC/VOC, tons per year;

TPY = throughput of sand, in tons, requested capacity of 6,180 tons per year;

EF = emission factor provided from OCMA Agreement - page 2 - phenolic urethane no-bake, 1.17 lb OC/VOC per ton of sand; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

g. Emission Limitation:

Visible particulate emissions from the bin filter shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0113394]

h. Emission Limitation:

Fugitive PM_{10} emissions shall not exceed 0.54 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Ef = [(0.35 x TPY)/2000] x 0.50

where:

Ef = fugitive emissions, tons per year;

0.35 = emission factor from RACM page 2-219 for Core Making, pound of PM per ton of core produced;

TPY = tons of sand processed through emissions unit, requested capacity of 6,180 tons per year;

2000 = conversion factor, pounds per ton; and

0.5 = assumes 50% of PM emissions is PM_{10} emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0113394]

g) Miscellaneous Requirements

(1) None.

12. F028, 600 lbs/min Castech Mixer

Operations, Property and/or Equipment Description:

Sand/binder mixing process.

Castech, 18 TPH Core Room Mixer for Cores located in #3 Core Room. Sand flows from a 100-ton silo equipped with bin vent filters into the sand heater to the mixer. Using Furan No-Bake for core making.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) (PTI P0115025)	Particulate matter (PM) emissions from the bin filter shall not exceed 0.01 pound per hour and 0.01 ton per year. Particulate matter less than 10 microns in diameter (PM_{10}) emissions from the bin filter shall not exceed 0.003 pound per hour and 0.004 ton per year. Fugitive PM emissions shall not exceed 8.75 tons per year. Fugitive PM_{10} emissions shall not exceed 4.38 tons per year. Organic compound (OC)/volatile organic compound (VOC) emissions shall not exceed 1.83 pounds per hour and 2.54 tons per year.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations required by this applicable rule are equivalent to and/or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)b.
d.	OAC rule 3745-17-07(B)	See b)(2)c.
e.	OAC rule 3745-17-08(B)	See b)(2)d.
f.	OAC rule 3745-17-11	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
g.	OAC rule 3745-17-07(A)	Visible particulate emissions from the bin filter shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter, particulate matter less than 10 microns in diameter and volatile organic compounds from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

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

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

c) Operational Restrictions

(1) The amount of sand processed through this emissions unit shall not exceed 50,000 tons per year.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0115025]

(2) The amount of combined binder and activator processed through this emissions unit shall not exceed 650 tons per year.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0115025]

(3) The permittee shall vent the sand bins through a bin filter that serves this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0115025]

d) Monitoring and/or Recordkeeping 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 bin filter and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115025]

(2) The permittee shall keep daily records of the amount of sand, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115025]

(3) The permittee shall keep annual records of the amount of sand, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115025]

(4) The permittee shall keep annual records of the amount of binder/activator, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115025]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the bin filter that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115025]

(2) The permittee shall submit annual deviation (excursion) reports that identify if the annual sand usage exceeded 50,000 tons.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115025]

(3) The permittee shall submit annual deviation (excursion) reports that identify if the combined annual binder and activator usage exceeded 650 tons.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115025]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM emissions from the bin filter shall not exceed 0.01 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Esh = 0.33 x TPH x (1 - FE)

where:

Esh = emissions from stack, pound per hour;

0.33 = emission factor from RACM, page 2-219; Core and Mold Sand Unloading and Storage - 0.03 lb/ton sand unloaded, plus Core Sand and Binder Mixing - 0.3 lb/ton sand mixed (0.03 + 0.3 = 0.33);

TPH = tons of sand processed through emissions unit, maximum capacity of 18.0 tons per hour; and

FE = bin filter efficiency, assumed to be 99%, 0.99.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115025]

b. Emission Limitation:

PM emissions from the bin filter shall not exceed 0.01 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Esy = [0.33 x TPY x (1 - FE)]/2000

where:

Esy = emissions from bin filter, ton per year;

0.33 = emission factor from RACM, page 2-219; Core and Mold Sand Unloading and Storage - 0.03 lb/ton sand unloaded, plus Core Sand and Binder Mixing - 0.3 lb/ton sand mixed (0.03 + 0.3 = 0.33);

TPY = tons of sand processed through emissions unit, requested capacity of 50,000 tons per year;

FE = bin filter efficiency, assumed to be 99%, 0.99; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115025]

c. Emission Limitation:

PM_{10} emissions from the bin filter shall not exceed 0.003 pound per hour and 0.004ton per year.

Applicable Compliance Method:

PM_{10} emissions are assumed to be 50% of PM emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115025]

d. Emission Limitation:

Fugitive PM emissions shall not exceed 8.75 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Ef = [(0.35 x TPY]/2000

where:

Ef = fugitive emissions, tons per year;

0.35 = emission factor from RACM page 2-219 for Core Making, pound of PM per ton of core produced;

TPY = tons of sand processed through emissions unit, requested capacity of 50,000 tons per year; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115025]

e. Emission Limitation:

OC/VOC emissions shall not exceed 1.83 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = PPH x EF

where:

E = emissions of OC/VOC, pounds per hour;

PPH = throughput of binder/resin, in pounds, maximum capacity of 468 pounds per hour (binder usage is based on a 1.3% of sand usage)

EF = emission factor from "Casting Emission Reduction Program (CERP); Product Test; HA International Enviroset 22 Furan No-Bake; Mix/Make/Cure; Storage; Pouring/Cooling/Shakeout; Technikon 1411-113 GI, March 2005." Furan No-Bake - 0.0039 pound OC/VOC per pound of binder.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115025]

f. Emission Limitation:

OC/VOC emissions shall not exceed 2.54 tons per year.

Applicable Compliance Method:

Compliance with the annual binder/resin usage limitation of 650 tons is sufficient to demonstrate compliance or by using the following equation:

E = [TPY x EF]/2000

where:

E = emissions of OC/VOC, tons per year;

TPY = throughput of binder/resin, in tons, requested capacity of 650 tons per year;

EF = emission factor from "Casting Emission Reduction Program (CERP); Product Test; HA International Enviroset 22 Furan No-Bake; Mix/Make/Cure; Storage; Pouring/Cooling/Shakeout; Technikon 1411-113 GI, March 2005." Furan No-Bake - 0.0039 pound OC/VOC per pound of binder.

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115025]

g. Emission Limitation:

Visible particulate emissions from the bin filter shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0115025]

h. Emission Limitation:

Fugitive PM_{10} emissions shall not exceed 4.38 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Ef = [(0.35 x TPY)/2000] x 0.50

where:

Ef = fugitive emissions, tons per year;

0.35 = emission factor from RACM page 2-219 for Core Making, pound of PM per ton of core produced;

TPY = tons of sand processed through emissions unit, requested capacity of 50,000 tons per year;

2000 = conversion factor, pounds per ton; and

0.5 = assumes 50% of PM emissions is PM_{10} emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115025]

g) Miscellaneous Requirements

(1) None.

13. K002, Paint Booth

Operations, Property and/or Equipment Description:

Paint spray booth for coating castings

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-21-09(U)	VOC content shall not exceed 3.5 pounds of VOC per gallon of coating, as applied, excluding water and exempt solvents.
b.	OAC rule 3745-17-11(C)	See c)(1), c)(2) and d)(3) through d)(7).
c.	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The permittee shall operate the dry filtration system for the control of particulate emissions whenever this emissions unit is in operation and shall maintain the dry particulate filter in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.

[Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-17-11(C)(1) and (2)(b)]

(2) In the event the particulate filter system is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-17-11(C)(2)(e)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain the following monthly records:

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

b. the VOC content as applied, in pounds per gallon of each coating/cleanup material employed;

c. the number of gallons of each coating/cleanup material employed;

d. the total VOC emissions [summation of (b x c) for each coating/cleanup material]

e. the total number of days operated; and

f. the average daily VOC emissions, in pounds per day [summation of (d/e)].

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain daily records of the VOC content as applied, excluding water and exempt solvents, as applied, of each coating employed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the dry particulate filter, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC 3745-17-11(C)(2)(a)]

(4) The permittee shall conduct periodic inspections of the dry particulate filter to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to the Ohio EPA upon request.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-17-11(C)(2)(c)]

(5) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the dry particulate filter while the emissions unit is shut down and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-17-11(C)(2)(c)]

(6) The permittee shall document each inspection (periodic and annual) of the dry particulate filter system and shall maintain the following information:

a. the date of the inspection;
b. a description of each/any problem identified and the date it was corrected;
c. a description of any maintenance and repairs performed; and
d. the name of person who performed the inspection.

These records shall be maintained at the facility for not less than five years from the date the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-17-11(C)(2)(d) and (f)]

(7) The permittee shall maintain records that document any time periods when the dry particulate filter was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the dry particulate filter was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-17-11(C)(2)(e),(f), and (g)], for [OAC rule 3745-17-11(C)(1)]

(8) 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 location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective action that were taken to eliminate abnormal visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. any day in which the coating VOC content limitation was exceeded. These reports shall be submitted in accordance with the Standard Terms and Conditions of this permit; and

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. any daily record showing that the dry particulate filter system was not in service or not operated according to manufacturer's recommendations (with any documented modifications made by the permittee) when the emissions unit(s) was/were in operation.

[OAC rule 3745-15-03(B)(1)(a) and OAC rule 3745-15-03(C); and OAC rule 3745-77-07(C)(1)]

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>:

VOC content shall not exceed 3.5 pounds of VOC per gallon of coating, as applied, excluding water and exempt solvents.

<u>Applicable Compliance Method</u>:

Compliance with the coating VOC content limitation shall be demonstrated by the record keeping requirements specified in d)(1).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

14. K003, West CR Paint Booth

Operations, Property and/or Equipment Description:

West Cleaning Room Paint Booth, with fiberglass overspray filter

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI P0104317)	Volatile organic compound (VOC) emissions from all coating and cleanup materials shall not exceed 120 pounds per day and 21.9 tons per year. There shall be no visible emissions from the stack serving this emissions unit. The requirements of this rule shall include compliance with OAC rule 3745-21-09(U) and OAC rule 3745-17-11(B)
b.	OAC rule 3745-21-09(U)	VOC content shall not exceed 3.5 pounds of VOC per gallon of coating, as applied, excluding water and exempt solvents.
c.	OAC rule 3745-17-11(C)	See c)(1), c)(2) and d)(3) through d)(7).
d.	OAC rule 3745-17-07(A)	The visible particulate emission limitation specified in this rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)3).

(2) Additional Terms and Conditions

a. The permittee shall operate and maintain particulate control filters at all times while spraying is occurring in the booth.

b. The particulate emission limitation above is greater than the controlled PTE for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with this limit.

c) Operational Restrictions

(1) The permittee shall operate the dry filtration system for the control of particulate emissions whenever this emissions unit is in operation and shall maintain the dry particulate filter in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.

[Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-17-11(C)(1) and (2)(b)]

(2) In the event the particulate filter system is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-17-11(C)(2)(e)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain the following monthly records:

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

b. the VOC content as applied, in pounds per gallon of each coating/cleanup material employed;

c. the number of gallons of each coating/cleanup material employed;

d. the total VOC emissions [summation of (b x c) for each coating/cleanup material]

e. the total number of days operated; and

f. the average daily VOC emissions, in pounds per day [summation of (d/e)].

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104317]

(2) The permittee shall maintain daily records of the VOC content as applied, excluding water and exempt solvents, as applied, of each coating employed.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104317]

(3) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the dry particulate filter, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC 3745-17-11(C)(2)(a)]

(4) The permittee shall conduct periodic inspections of the dry particulate filter to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to the Ohio EPA upon request.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-17-11(C)(2)(c)]

(5) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the dry particulate filter while the emissions unit is shut down and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-17-11(C)(2)(c)]

(6) The permittee shall document each inspection (periodic and annual) of the dry particulate filter system and shall maintain the following information:

a. the date of the inspection;
b. a description of each/any problem identified and the date it was corrected;
c. a description of any maintenance and repairs performed; and
d. the name of person who performed the inspection.

These records shall be maintained at the facility for not less than five years from the date the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-17-11(C)(2)(d) and (f)]

(7) The permittee shall maintain records that document any time periods when the dry particulate filter was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the dry particulate filter was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-17-11(C)(2)(e),(f), and (g)], for [OAC rule 3745-17-11(C)(1)]

(8) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air

contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104317]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. any day in which either the coating VOC content limitation or the average daily VOC emissions rate was exceeded. These reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104317]

b. any daily record showing that the dry particulate filter system was not in service or not operated according to manufacturer's recommendations (with any documented modifications made by the permittee) when the emissions unit(s) was/were in operation;

[OAC rule 3745-15-03(B)(1)(a) and OAC rule 3745-15-03(C); and OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>:

VOC emissions from all coating and cleanup materials shall not exceed 120 pounds per day and 21.9 tons per year.

<u>Applicable Compliance Method</u>:

Compliance with the daily VOC emission limitation shall be demonstrated by the record keeping requirements specified in d)(1).

The TPY emission limitation was developed by multiplying the daily short-term allowable emissions limitation (120 lbs/day) by the maximum annual days of operation (365 days), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the daily short-term allowable emissions limitation, compliance shall also be shown with the annual emission limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104317]

b. <u>Emission Limitation</u>:

VOC content shall not exceed 3.5 pounds of VOC per gallon of coating, as applied, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance with the coating VOC content limitation shall be demonstrated by the record keeping requirements specified in d)(1).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0104317]

c. Emission Limitation:

There shall be no visible emissions from the stack serving this emissions unit.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22.

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI P0104317]

g) Miscellaneous Requirements

(1) None.

15. P004, Pangborn Table Blaster

Operations, Property and/or Equipment Description:

Shot blast cleaning of castings, controlled by a fabric filter (baghouse #1)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
b.	OAC rule 3745-17-11(B)	Particulate emissions (PE) from the baghouse shall not exceed 5.38 pounds per hour.

(2) Additional Terms and Conditions

a. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping 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 baghouse and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range of 4.0 to 8.0 inches of water, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date the corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The range of the pressure drop across the baghouse shall be 4.0 to 8.0 inches of water, unless revisions are requested by the permittee and approved in writing by the Northeast District Office of the Ohio EPA. The permittee may request revisions to the permitted range for the pressure drop based upon information obtained during future testing that demonstrates compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a modification.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the baghouse that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>:

PM emissions from the baghouse shall not exceed 5.38 pounds per hour.

<u>Applicable Compliance Method</u>:

Compliance shall be demonstrated in accordance with the methods and procedures specified in 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 b)(1)a.

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. <u>Emission Limitation</u>:

Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

16. P006, Vac-Blast

Operations, Property and/or Equipment Description:

Shot blast cleaning of castings, controlled by a fabric filter (baghouse #1)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
b.	OAC rule 3745-17-11(B)	Particulate emissions (PE) from the baghouse shall not exceed 4.76 pounds per hour.

(2) Additional Terms and Conditions

a. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping 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 baghouse and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range of 4.0 to 8.5 inches of water, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date the corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The range of the pressure drop across the baghouse shall be 4.0 to 8.5 inches of water, unless revisions are requested by the permittee and approved in writing by the Northeast District Office of the Ohio EPA. The permittee may request revisions to the permitted range for the pressure drop based upon information obtained during future testing that demonstrates compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a modification.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the baghouse that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>:

PM emissions from the baghouse shall not exceed 4.76 pounds per hour.

<u>Applicable Compliance Method</u>:

Compliance shall be demonstrated in accordance with the methods and procedures specified in 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 b)(1)a.

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. <u>Emission Limitation</u>:

Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

17. P008, N. Plant Reclamation

Operations, Property and/or Equipment Description:

Sand reclaim system: natural gas fired sand dryer, sand scrubber, cooler, associated storage silos and material handling equipment, controlled by 2 fabric filters (baghouses #3 and #4)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse stacks shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
b.	OAC rule 3745-17-11(B)	Particulate emissions (PE) from the baghouses, which have pick-up hoods at the natural gas-fired dryer, sand dryer, sand scrubber, cooler, storage silos, and material handling operations, shall not exceed 4.48 pounds per hour. See b)(2)a.

(2) Additional Terms and Conditions

a. Each piece of equipment that is part of this emissions unit and has particulate emissions shall be vented to the baghouses serving this emissions unit in accordance with good engineering practices.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping 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

baghouse and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouses when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouses on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range of 4.0 to 8.5 inches of water for baghouse #3 and the range of 4.0 to 8.0 inches of water for baghouse #4, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date the corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The range of the pressure drop across the baghouses shall be 4.0 to 8.5 inches of water for baghouse #3 and the range of 4.0 to 8.0 inches of water for baghouse #4, unless revisions are requested by the permittee and approved in writing by the Northeast District Office of the Ohio EPA. The permittee may request revisions to the permitted range for the pressure drop based upon information obtained during future testing that demonstrates compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a modification.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from each baghouse that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across each baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to a baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>:

PM emissions from baghouse #3 and baghouse #4 shall not exceed 4.48 pounds per hour.

<u>Applicable Compliance Method</u>:

Compliance shall be demonstrated in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. <u>Emission Limitation</u>:

Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1) and OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted within 180 days after the issuance or 180 days prior to the expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60, Appendix A, Methods 1 through 5.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. 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 Ohio EPA Northeast District Office.

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

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

g. 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 Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

18. P017, Meltshop Innoculation

Operations, Property and/or Equipment Description:

Ductile iron processing in meltshop, controlled by a fabric filter (baghouse #20)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
b.	OAC rule 3745-17-11(B)	Particulate emissions (PE) from the baghouse shall not exceed 5.85 pounds per hour.

(2) Additional Terms and Conditions

a. Each piece of equipment that is part of this emissions unit and has particulate emissions shall be vented to the baghouse serving this emissions unit in accordance with good engineering practices.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping 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 baghouse and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range of 4.0 to 8.0 inches of water, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that

determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date the corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The range of the pressure drop across the baghouse shall be 4.0 to 8.0 inches of water, unless revisions are requested by the permittee and approved in writing by the Northeast District Office of the Ohio EPA. The permittee may request revisions to the permitted range for the pressure drop based upon information obtained during future testing that demonstrates compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a modification.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the baghouse that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>:

PM emissions from the baghouse shall not exceed 5.85 pounds per hour.

<u>Applicable Compliance Method</u>:

Compliance shall be demonstrated in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. <u>Emission Limitation</u>:

Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1) and OAC rule 3745-77-07(C)(1)]

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

a. The emission testing shall be conducted within 180 days after the issuance or 180 days prior to the expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60, Appendix A, Methods 1 through 5.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. 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 Ohio EPA Northeast District Office.

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

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

g. 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 Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

19. P024, Shakeout #2

Operations, Property and/or Equipment Description:

No. 2 shakeout system, controlled by a fabric filter (baghouse #15)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
b.	OAC rule 3745-17-11(B)	Particulate emissions (PE) from the baghouse shall not exceed 2.93 pounds per hour.

(2) Additional Terms and Conditions

a. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

(1) The baghouse used to control particulate emissions from this emissions unit (baghouse #15) also controls particulate emissions from #3 shakeout (P026). This emissions unit shall not operate at the same time that emissions unit P026 is in operation.

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping 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 baghouse and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range of 4.0 to 8.5 inches of water, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that

determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date the corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The range of the pressure drop across the baghouse shall be 4.0 to 8.5 inches of water, unless revisions are requested by the permittee and approved in writing by the Northeast District Office of the Ohio EPA. The permittee may request revisions to the permitted range for the pressure drop based upon information obtained during future testing that demonstrates compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a modification.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the baghouse that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) 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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation:</u>

PM emissions from the baghouse shall not exceed 2.93 pounds per hour.

<u>Applicable Compliance Method:</u>

Compliance shall be demonstrated in accordance with the methods and procedures specified in 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 b)(1)a.

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emissions observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

20. P026, Shakeout #3

Operations, Property and/or Equipment Description:

No. 3 shakeout system, controlled by a fabric filter (baghouse #15)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
b.	OAC rule 3745-17-11(B)	Particulate emissions (PE) from the baghouse shall not exceed 2.24 pounds per hour.

(2) Additional Terms and Conditions

a. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping 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 baghouse and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range of 4.0 to 8.5 inches of water, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that

determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date the corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The range of the pressure drop across the baghouse shall be 4.0 to 8.5 inches of water, unless revisions are requested by the permittee and approved in writing by the Northeast District Office of the Ohio EPA. The permittee may request revisions to the permitted range for the pressure drop based upon information obtained during future testing that demonstrates compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a modification.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the baghouse that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) 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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation:</u>

PM emissions from the baghouse shall not exceed 2.24 pounds per hour.

<u>Applicable Compliance Method:</u>

Compliance shall be demonstrated in accordance with the methods and procedures specified in 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 b)(1)a.

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

21. P027, MS Sand Reclaimer

Operations, Property and/or Equipment Description:

South plant sand reclaim system: ball mill crusher, sand scrubber, cooler/classifier, associated storage silos and material handling system, controlled by a fabric filter (baghouse #13)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 02-6389)	Particulate emissions (PE) from the baghouse, which has pick-up hoods at the ball mill crusher, sand scrubber, cooler/classifier, storage silos, and material handling operations, shall not exceed 0.030 grain per dscf and 1.92 pounds per hour. See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-17-11(B)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. Each piece of equipment that is part of this emissions unit and has particulate emissions shall be vented to the baghouse serving this emissions unit in accordance with good engineering practices.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping 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 baghouse and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-6389]

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range of 4.0 to 8.5 inches of water, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date the corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The range of the pressure drop across the baghouse shall be 4.0 to 8.5 inches of water, unless revisions are requested by the permittee and approved in writing by the Northeast District Office of the Ohio EPA. The permittee may request revisions to the permitted range for the pressure drop based upon information obtained during future testing that demonstrates compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-6389]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the baghouse that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-6389]

(2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in “a” (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in “a” where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-6389]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>:

PM emissions from the baghouse shall not exceed 0.030 grain per dscf and 1.92 pounds per hour.

<u>Applicable Compliance Method</u>:

Compliance shall be demonstrated in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10). Emission testing in accordance with f)(2) of this permit shall be performed to demonstrate compliance with this emission limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-6389]

b. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI 02-6389]

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

a. The emission testing shall be conducted within 180 days after the issuance or 180 days prior to the expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60, Appendix A, Methods 1 through 5.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. 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 Ohio EPA Northeast District Office.

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

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

g. 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 Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-6389]

g) Miscellaneous Requirements

(1) None.

22. P029, Core and mold wash operations

Operations, Property and/or Equipment Description:

Foundry core and mold wash operations

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	None.	

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. None.

g) Miscellaneous Requirements

(1) None.

23. P030, Shot blast-Disa-Goff

Operations, Property and/or Equipment Description:

Disa-Goff Twin 8 foot Table Blast Machine controlled by a baghouse

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(F) (PTI P0115844)	Particulate emissions (PE) shall not exceed 3.87 tons per year. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	PE shall not exceed 0.01 gr/dscf, 0.88 pound per hour and 3.87 tpy. Visible PE from the baghouse stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average. See b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)c.
d.	OAC rule 3745-17-07(A)	Visible PE from the baghouse stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. This emission limitation shall become effective once U.S. EPA approves the December 1. 2006 version of OAC rule 3745-31-05, as part of the State Implementation Plan.
e.	OAC rule 3745-17-11(A)	PE shall not exceed 46.3 pounds per hour.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		This emission limitation shall become effective once U.S. EPA approves the December 1. 2006 version of OAC rule 3745-31-05, as part of the State Implementation Plan.

(2) Additional Terms and Conditions

a. The permittee has proposed the voluntary restriction for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3): The use of a baghouse system, whenever this air contaminant source is in operation, with a minimum control efficiency of 90%, by weight for particulate emissions.

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05, as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U. S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U. S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U. S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

d. The Best available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter and visible particulate emissions from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping 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 location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115844]

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range of 4.0 to 8.5 inches of water, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that

determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date the corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The range of the pressure drop across the baghouse shall be 4.0 to 8.5 inches of water, unless revisions are requested by the permittee and approved in writing by the Northeast District Office of the Ohio EPA. The permittee may request revisions to the permitted range for the pressure drop based upon information obtained during future testing that demonstrates compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115844]

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115844]

(2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115844]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PE shall not exceed 3.87 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = (A x B x 60 x 8760) / (7000 x 2000)

where:

E = particulate emissions, tons per year;

A = 0.01 gr/dscf;

B = maximum baghouse air volume flow rate, 10,300 acfm;

60 = conversion factor, minutes per hour;

8760 = conversion factor, hours per year;

7000 = conversion factor, grains per pound; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115844]

b. Emission Limitation:

PE shall not exceed 0.01 gr/dscf.

Applicable Compliance Method:

If required by the Ohio EPA, compliance shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 [see f)(2)].

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115844]

c. Emission Limitation:

PE shall not exceed 0.88 pounds per hour and 3.87 tons per year.

Applicable Compliance Method:

Compliance with this emission limitation is based on the maximum air flow of the baghouse fan (10,300 cfm) controlling this emissions unit. As long as the baghouse demonstrates compliance with the grain/dscf limitation, compliance is assumed.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0115844]

d. Emission Limitation:

Visible PE from the baghouse stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115844]

e. Emission Limitation:

PE shall not exceed 46.3 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115844]

f. Emission Limitation:

Visible PE from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0115844]

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

a. The emission testing shall be conducted within 180 days after issuance or 180 prior to the expiration of the permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable concentration of particulates in the exhaust stream.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

For particulates: Methods 1 through 5 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. 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 Northeast District Office of the Ohio EPA.

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

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

g. 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 Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115844]

g) Miscellaneous Requirements

(1) None.

24. P031, Furnace 11-12 Scrap Preheater

Operations, Property and/or Equipment Description:

15.0 mmBtu/hr Scrap preheater for Furnaces 11 and 12 capable of processing 24 tons per hour of material

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) OAC rule 3745-31-05(E) (PTI P0103895)	$PM/PM_{10}/PM_{2.5}$ emissions from the baghouse stack shall not exceed 0.001 grain per dry standard cubic foot, 0.43 pound per hour and 1.88 tons per year.* There shall be no visible fugitive emissions. See b)(2)a. * These emission limitations are for the egress of the baghouse regardless of the number of emissions units vented to the baghouse.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations required by this applicable rule are equivalent to and/or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)a and b)(2)c.
d.	OAC rule 3745-17-11(B)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

(2) Additional Terms and Conditions

a. This permit takes into account the use of a baghouse system, whenever this emissions unit is in operation, with minimum capture efficiency of 100 percent, by weight for PM, and enough control efficiency to demonstrate compliance with 0.001 grain per dry standard cubic foot, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements.

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter, particulate matter less than 10 microns in diameter, and particulate matter less than 2.5 microns in diameter from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping 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 location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a once per day basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The acceptable pressure drop shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted and the appropriate range is established to demonstrate compliance.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control

equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

(3) The permittee shall perform daily checks, when the emissions unit is in operation, for any visible fugitive particulate emissions from the area immediately above the capture system 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. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this

emissions unit, (b) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack and/or eliminate the visible fugitive dust emissions. These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month periods.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

(2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in “a” (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in “a” where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

If no deviations/excursions occurred during a calendar quarter, the report shall so state that no deviations occurred during the reporting period.

The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>:

$PM/PM_{10}/PM_{2.5}$ emissions from the baghouse stack shall not exceed 0.001 grain per dry standard cubic foot and 0.43 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing procedures specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

b. Emission Limitation:

$PM/PM_{10}/PM_{2.5}$ emissions from the baghouse stack shall not exceed 1.88 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable particulate emission limitation (0.43 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

c. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0103895]

d. Emission Limitation:

There shall be no visible fugitive emissions.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22.

[Authority for term: OAC rule 3745-17-03(B)(4), OAC rule 3745-77-07(C)(1), and PTI P0103895]

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

a. The emission testing shall be conducted within 180 days after the issuance or 180 days prior to the expiration of this permit for the emissions units (P031, P901 and P902).

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates,

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

for particulates: 40 CFR Part 60, Appenidx A, Methods 1 through 5.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each emission test run, the pressure drop, in inches of water, across the baghouse shall be measured to establish an acceptable pressure drop range.

e. 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 Ohio EPA Northeast District Office. All emissions units vented to the baghouse shall be operated at or near their maximum capacities.

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

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

h. 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 Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

g) Miscellaneous Requirements

(1) None.

25. P032, East Shakeout

Operations, Property and/or Equipment Description:

Shakeout Number 4. PWR - 660 tons per day. Controlled by a 160,000 acfm baghouse.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) OAC rule 3745-31-05(E) (PTI P0103852)	$PM/PM_{10}/PM_{2.5}$ emissions from the baghouse stack shall not exceed 0.001 grain per dry standard cubic foot, 1.37 pounds per hour and 6.0 tons per year.* Fugitive PM emissions shall not exceed 5.2 tons per year. Fugitive $PM_{10}/PM_{2.5}$ emissions shall not exceed 3.7 tons per year. See b)(2)b. * These emission limitations are for the egress of the baghouse regardless of the number of emissions units vented to the baghouse.
b.	ORC 3704.03(T)	Volatile organic compound (VOC) emissions shall not exceed 33.0 pounds per hour and 39.0 tons per year. Carbon monoxide (CO) emissions shall not exceed 27.5 pounds per hour and 32.5 tons per year.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations required by this applicable rule are equivalent to and/or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)d.
d.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)b and b)(2)e.
e.	OAC rule 3745-17-11(B)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
f.	OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
g.	OAC rule 3745-17-08(B)	See b)(2)a.
h.	OAC rule 3745-17-07(B)	See b)(2)c.

(2) Additional Terms and Conditions

a. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08; therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).

b. This permit takes into account the use of a baghouse system, whenever this emissions unit is in operation, with minimum capture efficiency of 95 percent, by weight for PM, and enough control efficiency to demonstrate compliance with 0.001 grain per dry standard cubic foot, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements.

c. This emissions unit is exempt from the visible particulate emission limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within an area identified in "Appendix A" of OAC rule 3745-17-08.

d. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet

been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

e. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter, particulate matter less than 10 microns in diameter, and particulate matter less than 2.5 microns in diameter from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

c) Operational Restrictions

(1) The maximum annual production rate for this emissions unit shall not exceed 65,000 tons of metal processed, based upon a rolling, 12-month summation of production.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0103852]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

a. the amount of iron, in tons, processed through this emissions unit; and

b. the rolling, 12-month summation of the production rates.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

(3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a once per shift basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

Whenever the monitored value for the pressure drop deviates from the range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable pressure drop shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted and the appropriate range is established to demonstrate compliance.

This range of the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive dust emissions. These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month periods.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 65,000 tons of iron production rate restriction. These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

(3) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

If no deviations/excursions occurred during a calendar quarter, the report shall so state that no deviations occurred during the reporting period.

The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>:

Visible particulate emissions from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

<u>Applicable Compliance Method</u>:

If required by the Ohio EPA, compliance shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0103852]

b. <u>Emission Limitation</u>:

$PM/PM_{10}/PM_{2.5}$ emissions from the baghouse stack shall not exceed 0.001 grain per dry standard cubic foot and 1.37 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing procedures specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

c. Emission Limitation:

$PM/PM_{10}/PM_{2.5}$ emissions from the baghouse stack shall not exceed 6.0 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable particulate emission limitation (1.37 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

d. Emission Limitation:

Fugitive PM emissions shall not exceed 5.2 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = (EF x YP/2000) x (1- 0.95)

where:

E = emissions rate (tpy);

EF =emission factor for PM from AP-42, Section 12.10, Gray Iron Foundries, version 1/95, Table 12.10-7; 3.2 lb PM/ton iron;

YP = yearly throughput of iron, per monitoring and record keeping requirements, tons per year;

2000 = conversion factor, pounds per ton; and

(1 – 0.95) = capture efficiency of baghouse, assumed to be 95%.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

e. Emission Limitation:

Fugitive $PM_{10}/PM_{2.5}$ emissions shall not exceed 3.7 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = (EF x YP/2000) x (1- 0.95)

where:

E = emissions rate (tpy);

EF = emission factor for PM_{10} from AP-42, Section 12.10, Gray Iron Foundries, version 1/95, Table 12.10-9; 2.24 lb PM_{10}/ton iron;

YP = yearly throughput of iron, per monitoring and record keeping requirements, tons per year;

2000 = conversion factor, pounds per ton; and

(1 – 0.95) =capture efficiency of baghouse, assumed to be 95%.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

f. Emission Limitation:

VOC emissions shall not exceed 33.0 pounds per hour.

Applicable Compliance Method:

The facility permit application identifies the maximum production rate at 27.5 tons per hour of iron produced; therefore, the facility is assumed in compliance as long as production is not increased beyond this capacity.

The emission rate was arrived at by using the following equation:

E = EF x PWR

where:

E = emissions, pounds per hour;

EF = emission factor, 1.2 pounds per ton Fe processed from FIRE DATABASE; and

PWR =27.5 tons of iron produced per hour.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

g. Emission Limitation:

VOC emissions shall not exceed 39.0 tons per year.

Applicable Compliance Method:

Compliance with the annual production restriction is sufficient to demonstrate compliance with this emission limitation as demonstrated by the following equation:

[65,000 tons/yr x 1.2 lbs/ton] / 2000 lbs/ton = 39.0 tpy of VOC

where:

65,000 tons/yr = the maximum allowable annual production rate;

1.2 lbs/ton = emission factor from FIRE DATABASE; and

2000 lbs/ton = conversion factor for lbs to ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

h. Emission Limitation:

CO emissions shall not exceed 27.5 pounds per hour.

Applicable Compliance Method:

The facility permit application identifies the maximum production rate at 27.5 tons per hour of iron produced; therefore, the facility is assumed in compliance as long as production is not increased beyond this capacity.

The emission rate was arrived at by using the following equation:

E = EF x PWR

where:

E = emissions, pounds per hour;

EF = emission factor, 1.0 pounds per ton Fe processed from facility's permit application, reported to be based upon an emissions test conducted at the GM foundry located in Saginaw, MI; and

PWR = 27.5 tons of iron produced per hour.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

i. Emission Limitation:

CO emissions shall not exceed 32.5 tons per year.

Applicable Compliance Method:

Compliance with the annual production restriction is sufficient to demonstrate compliance with this emission limitation as demonstrated by the following equation:

[65,000 tons/yr x 1.0 lb/ton] / 2000 lbs/ton = 32.5 tpy of VOC

where:

65,000 tons/yr = the maximum allowable annual production rate;

1.0 lb/ton = emission factor from facility's permit application, reported to be based upon an emissions test conducted at the GM foundry located in Saginaw, MI; and

2000 lbs/ton = conversion factor for lbs to ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

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

a. The emission testing shall be conducted within 180 days after the issuance or 180 days prior to the expiration of this permit for emission units (P032 and P033).

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates,

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each emission test run, the pressure drop, in inches of water, across the baghouse shall be measured to establish an acceptable pressure drop range.

e. 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 Ohio EPA Northeast District Office. All emission units vented to the baghouse shall be operated at or near their maximum capacities.

f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s)

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

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

h. 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 Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

g) Miscellaneous Requirements

(1) None.

26. P033, East Sand Department

Operations, Property and/or Equipment Description:

North Side Sand Department (1-Hammer Mill, 1-400 ton Silo, 2-Attrition Mills, 1-Cooler) PWR - 40 tons per hour. Controlled by a 160,000 acfm baghouse with pick-up points on each of the above mentioned equipment.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) OAC rule 3745-31-05(E) (PTI P0103852)	$PM/PM_{10}/PM_{2.5}$ emissions from the baghouse stack shall not exceed 0.001 grain per dry standard cubic foot, 1.37 pounds per hour and 6.0 tons per year.* Fugitive PM/ $PM_{10}/PM_{2.5}$ emissions shall not exceed 0.06 ton per year. See b)(2)c. * These emission limitations are for the egress of the baghouse regardless of the number of emissions units vented to the baghouse.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations required by this applicable rule are equivalent to and/or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)d.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)c and b)(2)e.
d.	OAC rule 3745-17-11(B)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
f.	OAC rule 3745-17-07(B)	See b)(2)a.
g.	OAC rule 3745-17-08(B)	See b)(2)b.

(2) Additional Terms and Conditions

a. This emissions unit is exempt from the visible particulate emission limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within an area identified in "Appendix A" of OAC rule 3745-17-08.

b. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08; therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).

c. This permit takes into account the use of a baghouse system, whenever this emissions unit is in operation, with a minimum capture efficiency of 99.99 percent, by weight, for PM and enough control efficiency to demonstrate compliance with 0.001 grain per dry standard cubic foot, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements.

d. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

e. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter, particulate matter less than 10 microns in diameter, and particulate matter less than 2.5 microns in

diameter from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

a. the amount of sand, in tons, processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

(3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a once per shift basis.

The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

Whenever the monitored value for the pressure drop deviates from the range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable pressure drop shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted and the appropriate range is established to demonstrate compliance.

This range of the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during

future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive dust emissions. These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month periods.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

(2) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in “a” (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in “a” where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

If no deviations/excursions occurred during a calendar quarter, the report shall so state that no deviations occurred during the reporting period.

The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Fugitive PM/ PM_{10}/$PM_{2.5}$ emissions shall not exceed 0.06 ton per year.

Applicable compliance Method:

Compliance shall be demonstrated by using the following equation:

E = EF x YP/2000 x (1 – 0.9999)

where:

E = fugitive emissions of PM/PM_{10}/$PM_{2.5}$, tpy;

EF = emission factor, from AP-42, Section 12.10 Gray Iron Foundries, version 1/95; Table 12.10-7, uncontrolled sand handling, 3.6 lb PM per ton of sand handled;

YP = yearly throughput of sand, tons;

1 – 0.9999 = decimal percent of fugitive PM that escapes capture system; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

b. Emission Limitation:

PM/PM_{10}/$PM_{2.5}$ emissions from the baghouse stack shall not exceed 0.001 grain per dry standard cubic foot and 1.37 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing procedures specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

c. Emission Limitation:

PM/PM_{10}/$PM_{2.5}$ emissions from the baghouse stack shall not exceed 6.0 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable particulate emission limitation (1.37 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

d. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required by the Ohio EPA, compliance shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0103852]

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

a. The emission testing shall be conducted within 180 days after the issuance or 180 days prior to the expiration of this permit for emission units (P032 and P033).

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each emission test run, the pressure drop, in inches of water, across the baghouse shall be measured to establish an acceptable pressure drop range.

e. 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 Ohio EPA Northeast District Office. All emission units vented to the baghouse shall be operated at or near their maximum capacities.

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

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

h. 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 Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103852]

g) Miscellaneous Requirements

(1) None.

27. P053, Scrap Shaker

Operations, Property and/or Equipment Description:

Scrap shaker table controlled by a baghouse.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) OAC rule 3745-31-05(E) (PTI P0108939)	Particulate matter (PM)/particulate matter less than 10 microns in diameter (PM_{10}) from the baghouse that serves this emissions unit, shall not exceed 0.015 grains per dscf; 1.03 pounds per hour; and 4.51 tons per year Visible particulate emissions from the baghouse stack that serves this emissions unit shall not exceed 10% opacity as a 6-minute average. Fugitive emissions of particulate matter (PM)/particulate matter less than 10 microns in diameter (PM_{10}) from this emissions unit shall not exceed 2.63 tons per year. Visible emissions of fugitive dust from this emissions unit (observed as opacity emanating from building egresses) shall not exceed 10% opacity as a 3-minute average. See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations established pursuant to this rule are equivalent to the limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)a and b)(2)c.
d.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
e.	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
f.	OAC rule 3745-17-07(B)	This emissions unit is exempt from the visible particulate emission limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within an area identified in "Appendix A" of OAC rule 3745-17-08.
g.	OAC rule 3745-17-08(B)	This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08; therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).

(2) Additional Terms and Conditions

a. This permit for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment), as provided by the permittee, for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

This emissions unit shall be vented to a baghouse, whenever this emissions unit is in operation.

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05, as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was

revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U. S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U. S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U. S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter and particulate matter less than 10 microns in diameter from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

c) Operational Restrictions

(1) The permittee shall not process more than 87,600 tons of scrap per year.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0108939]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse once per day, 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), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range of 4.0 - 8.5 inches of water, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee

determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouses shall be 4.0 - 8.5 inches of water, unless revisions are requested by the permittee and approved in writing by the Northeast District Office of the Ohio EPA. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0108939]

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack and for any fugitive emissions from building openings. 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 emissions incident; and

e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0108939]

(3) The permittee shall record daily the amount of scrap processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0108939]

e) Reporting Requirements

(1) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0108939]

(2) The permittee shall submit quarterly written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving the building; and

b. any corrective actions taken to eliminate the visible particulate emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0108939]

(3) The permittee shall submit an annual deviation (excursion) report if the annual amount of scrap processed through this emissions unit exceeds 87,600 tons. Reports shall be submitted by January 31st of each year.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0108939]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM/PM_{10} emissions from the baghouse shall not exceed 0.015 grain per dscf and 1.03 pounds per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated by performing an emission test in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0108939]

b. Emission Limitation:

PM/PM_{10} emissions from the baghouse that serves the building that this emissions unit is located, shall not exceed 4.51 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable PM/PM_{10} emission limitation (1.03 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is demonstrated with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0108939]

c. Emission Limitation:

Fugitive PM/PM_{10} emissions from this emissions unit shall not exceed 2.63 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

$E = TS \times EF \times (1 - 0.9)/2000$

where:

E = emissions of PM/PM_{10}, tons per year;
TS = scrap processed through shaker, tons per year;
EF = emission factor from AP-42, Section 12.10-7, Gray Iron Foundries, version 1/95, 0.6 pound of PM/ton gray iron. Assuming: one ton of scrap is equivalent to one ton of gray iron;
0.9 = assume baghouse captures 90% of emissions; and
2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0108939]

d. Emission Limitation:

Visible particulate emissions from the baghouse stack that serves this emissions unit shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated by performing visible particulate emission observations in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0108939]

e. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit (observed as opacity emanating from building egresses) shall not exceed 10% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated by performing visible particulate emission observations in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9, with the modifications listed in OAC rule 3745-17-03(B)(3)

[Authority for term: OAC rule 3745-17-03(B)(3), OAC rule 3745-77-07(C)(1), and PTI P0108939]

g) Miscellaneous Requirements

(1) None.

28. P903, P903

Operations, Property and/or Equipment Description:

Inoculation process in the BMM area (PWR - 9.18 TPH). Controlled by a 50,000 acfm baghouse.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) OAC rule 3745-31-05(E) (PTI P0103845)	$PM/PM_{10}/PM_{2.5}$ emissions shall not exceed 0.005 grain/dscf, 2.14 pounds per hour and 4.28 tpy. Fugitive $PM/PM_{10}/PM_{2.5}$ emissions shall not exceed 5.63 tpy. See c)(1) and c)(2).
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations established pursuant to this rule are equivalent to the limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)d.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)e.
d.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
e.	OAC rule 3745-17-11(B)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
f.	OAC rule 3745-17-07(B)	See b)(2)a.
g.	OAC rule 3745-17-08(B)	See b)(2)b.

(2) Additional Terms and Conditions

a. This emissions unit is exempt from the visible particulate emission limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08.

b. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08, therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).

c. The emissions from this emissions unit shall be vented to a baghouse at all times the emissions unit is in operation.

d. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05, as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U. S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U. S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U. S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

e. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter, particulate matter less than 10 microns in diameter, and particulate matter less than 2.5 microns in diameter from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

c) Operational Restrictions

(1) The maximum annual operating hours for this emissions unit shall not exceed 4000, based upon a rolling, 12-month summation of the operating hours.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0103845]

(2) The maximum annual production rate for this emissions unit shall not exceed 18,750 tons of metal inoculated, based upon a rolling, 12-month summation of the production rates.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0103845]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

a. the number of hours iron was inoculated each month, in this emissions unit;

b. the rolling, 12-month summation of the number of hours iron was inoculated;

c. the amount of iron, in tons, inoculated in this emissions unit; and

d. the rolling, 12-month summation of the inoculated iron production rates.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103845]

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a once per shift basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The acceptable pressure drop range is 2.0 – 10.0 inches of water.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103845]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-monthlimitation on the hours of operation. These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103845]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month limitation of the production rate. These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103845]

(3) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in “a” (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

If no deviations/excursions occurred during a calendar quarter, the report shall so state that no deviations occurred during the reporting period.

The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103845]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0103845]

b. Emission Limitation:

$PM/PM_{10}/PM_{2.5}$ emissions shall not exceed 0.005 grain/dscf.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing procedures specified in 40 CFR Part 60, Appendix A, Method 5 [see f)(2)].

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103845]

c. Emission Limitation:

$PM/PM_{10}/PM_{2.5}$ emissions shall not exceed 2.14 pounds per hour.

Applicable Compliance Method:

Compliance with this emissions limit is based on the maximum air flow of the baghouse fan (50,000 cfm) controlling this emissions unit. As long as the baghouse demonstrates compliance with the grain/dscf limitation, compliance is assumed.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103845]

d. Emission Limitation:

$PM/PM_{10}/PM_{2.5}$ emissions shall not exceed 4.28 tpy.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = G x 50,000 x 60 x H/(7000 x 2000)

where:

E = emission rate, tons per year;

G = grains per dry standard cubic foot, from most recent stack test;

50,000 = maximum air flow of the baghouse fan that controls this emissions unit, cfm;

60 = conversion factor, minutes per hour;

H = hours of operation per year, per monitoring and record keeping;

7000 = conversion factor, grains per pound; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103845]

e. Emission Limitation:

Fugitive $PM/PM_{10}/PM_{2.5}$ emissions shall not exceed 5.63 tpy.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = (4.0 x TPY x 0.15)/2000

where:

E = $PM/PM_{10}/PM_{2.5}$ fugitive emissions, in tpy;

EF = emission factor from FIRE Database. (SCC 03400310), pounds of $PM/PM_{10}/PM_{2.5}$ per ton iron inoculated;

TPY = tons of inoculated iron processed through the emissions unit per year, from monitoring and record keeping, tons iron per year;

0.15 = estimate of emissions that escape capture, decimal percent; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103845]

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

a. The emission testing shall be conducted within 180 days after issuance or 180 prior to the expiration of the permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable concentration of particulates in the exhaust stream.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

For particulates: Method 5 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. 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 Northeast District Office of the Ohio EPA.

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

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

g. 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 Ohio EPA Northeast District Office within 30 days following completion of the

test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103845]

g) Miscellaneous Requirements

(1) None.

29. P904, P904

Operations, Property and/or Equipment Description:

BMM Mold Making controlled by a 30,000 acfm baghouse. (The baghouse also controls other parts of the BMM operation. No organic compound binders are used.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) (PTI P0105731)	Particulate matter/particulate matter less than 10 microns in diameter (PM/PM_{10}) emissions from the baghouse stack shall not exceed 0.003 grain per dscf, 0.77 pound per hour and 1.85 tons per year.* *Emissions are a summation of all units that are ducted to the baghouse. Fugitive particulate emissions shall not exceed 0.04 ton per year. Fugitive PM_{10} emissions shall not exceed 0.02 ton per year. Visible particulate emissions from the baghouse stack shall not exceed 10% opacity, as a 6-minute average, at any time. Visible fugitive particulate emissions shall not exceed 10% opacity as a 3-minute average. See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations established pursuant to this rule are equivalent to the limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)a and b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)c.
d.	OAC rule 3745-17-07(B)	See b)(2)d.
e.	OAC rule 3745-17-08(B)	See b)(2)e.
f.	OAC rule 3745-17-07(A)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
g.	OAC rule 3745-17-11	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).

(2) Additional Terms and Conditions

a. 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.

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter less than 10 microns in diameter and particulate matter from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

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

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

c) Operational Restrictions

(1) The amount of iron processed through this emissions unit shall not exceed 14 tons per hour and 21,000 tons per year.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0105731]

(2) The maximum annual operating hours for this emissions unit shall not exceed 4800, based upon a rolling, 12-month summation of the operating hours. This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the hours of operation upon issuance of this permit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0105731]

d) Monitoring and/or Recordkeeping 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 baghouse and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

emissions unit continued to operate under normal conditions, or specify the corrective action that were taken to eliminate abnormal visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

(2) The permittee shall keep monthly records of:

a. the amount of iron, in tons, processed through this emissions unit;

b. the operating hours for each day;

c. the amount of iron, in tons, processed through this emissions unit per hour (a/b); and

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

(3) The permittee shall keep annual records of the amount of iron processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the baghouse that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

(2) The permittee shall submit annual deviation (excursion) reports that identify:

a. all exceedances of the rolling, 12-month restriction on the hours of operation for this emissions unit;

b. all exceedances of the 14 tons per hour iron usage rate; and

c. all exceedance of the 21,000 tons per year iron usage rate.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM/PM_{10} emissions from the baghouse stack shall not exceed 0.003 grain per dscf and 0.77 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated based upon an emission test performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

b. Emission Limitation:

PM/PM_{10} emissions from the baghouse stack shall not exceed 1.85 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

TPY = (ET x flow x 60 x H)/(7000 x 2000)

where:

TPY = emissions of PM, tons per year;

ET = results of emissions testing, grains/cf;

flow = flow rate from baghouse, cfm;

60 = conversion factor, minutes per hour;

H = emissions unit operating hours;

7000 = conversion factor, grains per pound; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

c. Emission Limitation:

Fugitive particulate emissions shall not exceed 0.04 ton per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

E = (EF x T x (1 - CE))/(2000)

where:

E = emissions of fugitive particulate emissions, TPY;

EF = emission factor, 0.04 lbs PM/ton of casting from RACM page 2-219 for Mold Making;

T = iron throughput, tons per year;

CE = capture efficiency of baghouse, assumed to be 90% (0.9); and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

d. Emission Limitation:

Fugitive PM_{10} emissions shall not exceed 0.02 ton per year.

Applicable Compliance Method:

Fugitive PM_{10} emissions are assumed to be half the emissions of fugitive PM emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

e. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 10% opacity, as a 6-minute average, at any time.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0105731]

f. Emission Limitation:

Visible fugitive particulate emissions shall not exceed 10% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0105731]

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

a. The emission testing shall be conducted within 180 days after the issuance or 180 days prior to the expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60, Appendix A,Methods 1 through 5; and

40 CFR Part 51, Appendix M, Method 201.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. 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 Ohio EPA Northeast District Office.

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

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

g. 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 Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

g) Miscellaneous Requirements

(1) None.

30. P905, P905

Operations, Property and/or Equipment Description:

BMM Sand Reclaim Operations includes North and South 60-ton sand tanks, controlled by a 62,000 cfm baghouse (Baghouse #24, Northeast). The baghouse also controls parts of other BMM operating lines.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) (PTI P0105731)	Particulate matter/particulate matter less than 10 microns in diameter (PM/PM_{10}) emissions from the baghouse stack shall not exceed 0.003 grain per dscf, 1.60 pounds per hour and 3.83 tons per year.* *Emissions are a summation of all units that are ducted to the baghouse. Fugitive particulate emissions shall not exceed 6.12 tons per year. Fugitive PM_{10} emissions shall not exceed 0.92 ton per year. Visible particulate emissions from the baghouse stack shall not exceed 10% opacity, as a 6-minute average, at any time. Visible fugitive particulate emissions shall not exceed 10% opacity as a 3-minute average. See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations established pursuant to this rule are equivalent to the limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)a and b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)c.
d.	OAC rule 3745-17-07(B)	See b)(2)d.
e.	OAC rule 3745-17-08(B)	See b)(2)e.
f.	OAC rule 3745-17-07(A)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
g.	OAC rule 3745-17-11	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).

(2) Additional Terms and Conditions

a. 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.

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter less than 10 microns in diameter and particulate matter from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

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

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

c) Operational Restrictions

(1) The amount of sand processed through this emissions unit shall not exceed 69 tons per hour and 170,000 tons per year.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0105731]

(2) The maximum annual operating hours for this emissions unit shall not exceed 4800, based upon a rolling, 12-month summation of the operating hours. This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the hours of operation upon issuance of this permit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0105731]

d) Monitoring and/or Recordkeeping 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 baghouse and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that

no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective action that were taken to eliminate abnormal visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

(2) The permittee shall keep monthly records of:

a. the amount of sand, in tons, processed through this emissions unit;

b. the operating hours for each day;

c. the amount of sand, in tons, processed through this emissions unit per hour (a/b); and

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

(3) The permittee shall keep annual records of the amount of sand processed through this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the baghouse that is serving this emissions unit;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive particulate emissions.

These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

(2) The permittee shall submit annual deviation (excursion) reports that identify:

a. all exceedances of the rolling, 12-month restriction on the hours of operation for this emissions unit;

b. all exceedances of the 69 tons per hour sand usage rate; and

c. all exceedance of the 170,000 tons per year sand usage rate.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM/PM_{10} emissions from the baghouse stack shall not exceed 0.003 grain per dscf and 1.60 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated based upon an emission test performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

b. Emission Limitation:

PM/PM_{10} emissions from the baghouse stack shall not exceed 3.83 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

TPY = (ET x flow x 60 x H)/(7000 x 2000)

where:

TPY = emissions of PM, tons per year;

ET = results of emissions testing, grains/cf;

flow = flow rate from baghouse, cfm;

60 = conversion factor, minutes per hour;

H = emissions unit operating hours;

7000 = conversion factor, grains per pound; and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

c. Emission Limitation:

Fugitive particulate emissions shall not exceed 6.12 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

E = (EF x T x (1 - CE))/2000

where:

E = emissions of fugitive particulate emissions, TPY;

EF = emission factor, 3.6 lbs PM/ton of sand from AP-42, Section 12.10, Gray Iron Foundries, Table 12.10-7, Sand Handling (uncontrolled);

T = sand throughput, tons per year;

CE = capture efficiency of baghouse, assumed to be 98% (0.98); and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

d. Emission Limitation:

Fugitive PM_{10} emissions shall not exceed 0.92 ton per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

E = (EF x T x (1 - CE))/2000

where:

E = emissions of fugitive particulate emissions, TPY;

EF = emission factor, 0.54 lbs PM_{10}/ton of sand from FIREDATABASE, Sand Grinding/Handling (uncontrolled);

T = sand throughput, tons per year;

CE = capture efficiency of baghouse, assumed to be 98% (0.98); and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

e. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 10% opacity, as a 6-minute average, at any time.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0105731]

f. Emission Limitation:

Visible fugitive particulate emissions shall not exceed 10% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0105731]

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

a. The emission testing shall be conducted within 180 days after the issuance or 180 days prior to the expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60, Appendix A, Methods 1 through 5; and

40 CFR Part 51, Appendix M, Method 201.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. 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 Ohio EPA Northeast District Office.

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

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

g. 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 Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105731]

g) Miscellaneous Requirements

(1) None.

31. Emissions Unit Group - Old Furnaces: F001, F002, F003, F004

EU ID	Operations, Property and/or Equipment Description
F001	3.5 TPH Electric Induction Furnace #1
F002	3.5 TPH Electric Induction Furnace #2
F003	3.5 TPH Electric Induction Furnace #3
F004	3.5 TPH Electric Induction Furnace #4

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) (PTI P0105000)	$PM/PM_{10}/PM_{2.5}$ emissions shall not exceed 3.15 pounds per hour. $PM/PM_{10}/PM_{2.5}$ emissions from F001, F002, F003 and F004, combined, shall not exceed 33.0 tons per year. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations established pursuant to this rule are equivalent to the limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)a and b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)c.
d.	OAC rule 3745-17-07(B)	See b)(2)d.
e.	OAC rule 3745-17-08(B)	See b)(2)e.
f.	40 CFR Part 63, Subpart ZZZZZ	PM emissions shall not exceed 0.8 pound per ton of metal charged or total metal HAP shall not exceed 0.6 pound per ton of metal charged.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The visible particulate fugitive emission limitation required by this applicable rule is less stringent than the visible particulate fugitive emission limitation established in OAC rule 3745-31-05(D)(1)(a). See B.2 and b)(2)f.

(2) Additional Terms and Conditions

a. Visible emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

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

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

f. The permittee has determined that each electric induction furnace will be specifically uncontrolled as part of an emissions averaging group in accordance with 40 CFR 63.10895(b). Therefore, the PM or total metal HAP emission limitation specified in b)(1)f shall apply to the group of all metal melting furnaces in accordance with 40 CFR 63.10895(c).

c) Operational Restrictions

(1) The maximum annual combined production rates from F001, F002, F003, and F004 shall not exceed 73,333 tons of metal, based upon a rolling, 12-month summation of the

production rates. As these emissions units have been in operation since 1973 and production records exist, during the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production rate limitations shall be based on the rolling 12-month summation of existing monthly records of production and new monthly records of production. After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production rate limitations shall be based upon a rolling, 12-month summation of the production rates.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0105000]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

a. the combined production rate for each month;

b. the rolling, 12-month summation of the combined production rates; and

c. the monthly average charge rate for each metal melting furnace.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105000]

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105000]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation. These reports shall include any corrective action or corrective measures taken.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105000]

(2) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

b. any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions.

These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105000]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>:

Visible emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

<u>Applicable Compliance Method</u>:

If required, compliance shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3).

[Authority for term: OAC rule 3745-17-03(B)(3), OAC rule 3745-77-07(C)(1), and PTI P0105000]

b. Emission Limitation:

$PM/PM_{10}/PM_{2.5}$ emissions shall not exceed 3.15 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = EF x PR

where:

E = emission rate; lb/hr;

EF = emission factor, AP-42, section 12.10 Gray Iron Foundry, version 1/95, Table 12.10-3; 0.9 lb/ton Metal; and

PR =hourly production rate; tons metal/hr.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105000]

c. Emission Limitation:

$PM/PM_{10}/PM_{2.5}$ emissions from F001, F002, F003 and F004, combined, shall not exceed 33.0 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = EF x CPR x 1/2000

where:

E = emission rate; ton/year;

EF = emission factor, AP-42, section 12.10 Gray Iron Foundry, version 1/95, Table 12.10-3; 0.9 lb/ton Metal;

CPR = combined annual production rate from furnaces F001, F002, F003 and F004; tons metal/hr; and

2000 = conversion factor, lbs/ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105000]

d. Emission Limitation:

PM emissions shall not exceed 0.8 pound per ton of metal charged or total metal HAP shall not exceed 0.6 pound per ton of metal charged.

Applicable Compliance Method:

Compliance shall be demonstrated by computing the mass-weighted PM or total metal HAP using the following equation:

$$E_c = \frac{\sum_{i=1}^{n}\left(E_{pi} \times T_{ti}\right)}{\sum_{i=1}^{n} T_{ti}} \qquad \text{(Eq. 2)}$$

where:

E_C= the mass-weighted PM or total metal HAP emissions for the group of all metal melting furnaces at the foundry, pounds of PM or total metal HAP per ton of metal charged;

E_{pi}= process-weighted mass emissions of PM or total metal HAP for individual emission unit i as determined from the performance test and calculated using Equation 1 of 40 CFR 63.10898(d), pounds of PM or total metal HAP per ton of metal charged;

T_{ti}= total tons of metal charged for individual emission unit i for the calendar month prior to the performance test, tons [see d)(1)c]; and

n = the total number of metal melting furnaces at the iron and steel foundry.

For an uncontrolled electric induction furnace that is not equipped with a capture system and has not been previously tested for PM or total metal HAP, the permittee may assume an emission factor of 2 pounds per ton of PM or 0.13 pound of total metal HAP per ton of metal melted in Equation 2 above instead of a measured test value.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0105000]

g) Miscellaneous Requirements

(1) None.

32. Emissions Unit Group - Exempt Units: F012, F013, F014, F015

EU ID	Operations, Property and/or Equipment Description
F012	Foundry #1 Pouring.
F013	Foundry #2 Pouring.
F014	Foundry #3 Pouring.
F015	Sand/binder mixer (#3 Core Dept. Mixer – Kloster)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(B)	See b)(2)a.
b.	OAC rule 3745-17-08(B)	See b)(2)b.

(2) Additional Terms and Conditions

a. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).

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

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. None.

g) Miscellaneous Requirements

(1) None.

33. Emissions Unit Group - Holding Furnaces: F019, F020

EU ID	Operations, Property and/or Equipment Description
F019	Furnace Number 6, North Holding Furnace (PWR - 8.5 tons per hour)
F020	Furnace Number 5, South Holding Furnace (PWR - 8.5 tons per hour)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 02-11167)	Particulate matter (PM) emissions shall not exceed 3.2 pounds per hour and 3.2 tons per rolling, 12-month period. Visible particulate emissions shall not exceed 5% opacity, as a 6-minute average.
b.	OAC rule 3745-17-07(B)	See b)(2)a.
c.	OAC rule 3745-17-08(B)	See b)(2)b.

(2) Additional Terms and Conditions

a. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).

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

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 02-11167]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

a. the production rate for each month; and

b. the rolling, 12-month summation of the production rates.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-11167]

(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 location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-11167]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month periods.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-11167]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 10,500 tons of iron production rate restriction. These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-11167]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM emissions shall not exceed 3.2 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equations:

E = iron throughput (in tons per hour) x 0.6 (lb/ton)

where

E = particulate emissions (lbs/hr); and

0.6 = emission factor in lbs particulates 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 and charging and tapping).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-11167]

b. Emission Limitation:

PM emissions shall not exceed 3.2 tons per rolling 12-month period.

Applicable Compliance Method:

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

E = actual iron throughput (in tons per rolling, 12-month period) X 0.6 X (1 ton/2000 lbs)

where

E = actual particulate emissions (tons/rolling 12-month period)

0.6 = emission factor in lbs particulates 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 electricinduction furnaces charging and tapping); and

2000 = conversion factor, pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-11167]

c. Emission Limitation:

Visible particulate emissions shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI 02-11167]

g) Miscellaneous Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-11167]

34. Emissions Unit Group – WCR Blasters: P035, P036, P054

EU ID	Operations, Property and/or Equipment Description
P035	West Cleaning Room (WCR) - Goff Spin Blaster (PWR - 3 TPH) controlled by a 7000 acfm baghouse.
P036	West Cleaning Room (WCR) - Goff Twin Table Blaster (PWR - 8 TPH) controlled by a 7000 acfm baghouse.
P054	West Cleaning Room (WCR) - Twin Table Blaster (PWR - 8 TPH) controlled by a 7,000 acfm baghouse.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) OAC rule 3745-31-05(E) (PTI P0115983) (PTI P0111169)	Particulate matter (PM)/particulate matter less than 10 microns in diameter (PM_{10}) from the baghouse that serves these emissions units, shall not exceed 0.003 grain per dscf and 0.18 pound per hour each. Particulate matter (PM)/ particulate matter less than 10 microns in diameter (PM_{10}) from the baghouse that serves the building where P035-P052 and P054 are located, shall not exceed 2.12 pounds per hour and 9.29 tons per year. Visible particulate emissions from the baghouse stack that serves this building shall not exceed 10% opacity as a 6-minute average. There shall be no visible fugitive particulate emissions from the building egress points (i.e., building windows, doors, roof monitors, etc.). See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations established pursuant to this rule are equivalent to the limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)a and b)(2)c.
d.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
e.	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
f.	OAC rule 3745-17-07(B)	This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
g.	OAC rule 3745-17-08(B)	The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

(2) Additional Terms and Conditions

a. The permits for these air contaminant sources take into account the following voluntary restrictions (including the use of any applicable air pollution control equipment), as provided by the permittee, for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

These emissions units shall be vented to a baghouse that vents inside the building, whenever this emissions unit is in operation.

The building that these emissions units baghouse vents to shall be vented to a baghouse at all times these emissions units are in operation.

The building shall be kept under negative pressure at all times these emissions units are in operation.

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05, as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U. S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U. S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U. S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter less than 10 microns in diameter and particulate matter from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

c) Operational Restrictions

(1) All interior pressure readings shall be lower than the pressure readings taken from the exterior of the building.

[Authority for term: OAC rule 3745-77-07(A)(1), PTI P0115983 and PTI P0111169]

(2) The direction of air flow through all building openings, at all times, shall be into the building.

[Authority for term: OAC rule 3745-77-07(A)(1), PTI P0115983 and PTI P0111169]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouses (emissions units baghouse and building baghouse) when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouses on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range of 0.5 - 6.0 inches of water, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouses shall be 0.5 - 6.0 inches of water, unless revisions are requested by the permittee and approved in writing by the Northeast District Office of the Ohio EPA. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a modification.

[Authority for term: OAC rule 3745-77-07(C)(1), PTI P0115983 and PTI P0111169]

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving the building. 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 emissions incident; and

e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1), PTI P0115983 and P0111169]

(3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure outside the building and the pressure inside the building, in inches of water. The pressure monitors shall be in operation at all times the emissions unit(s) is/are in operation. The permittee shall record pressure outside and inside the building on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

[Authority for term: OAC rule 3745-77-07(C)(1), PTI P0115983 and P0111169]

(4) The permittee shall quarterly monitor the direction of air flow at all building openings by use of smoke tubes, streamers, or other air flow indicators, approved by the Northeast District Office of the Ohio EPA. The permittee shall record the date, time, and person performing this monitoring as well as the resulting air flow direction.

[Authority for term: OAC rule 3745-77-07(C)(1), PTI P0115983 and PTI P0111169]

e) Reporting Requirements

(1) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1), PTI P0115983 and P0111169]

(2) The permittee shall submit quarterly written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving the building; and

b. any corrective actions taken to eliminate the visible particulate emissions.

[Authority for term: OAC rule 3745-77-07(C)(1), PTI P0115983 and P0111169]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify all readings that indicate the pressure of the interior of the building was greater than the pressure of the exterior of the building.

[Authority for term: OAC rule 3745-77-07(C)(1), PTI P0115983 and PTI P0111169]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify all monitoring data that indicates the air flow at any building opening was leaving the building.

[Authority for term: OAC rule 3745-77-07(C)(1), PTI P0115983 and P0111169]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>:

PM/PM_{10} emissions from the baghouse that serves these emissions units shall not exceed 0.003 grain per dscf and 0.18 pound per hour each.

<u>Applicable Compliance Method</u>:

If required, compliance shall be demonstrated by performing an emission test in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201.

[Authority for term: OAC rule 3745-77-07(C)(1), PTI P0115983 and PTI P0111169]

b. <u>Emission Limitation</u>:

PM/PM_{10} emissions from the baghouse that serves the building where P035-P052 and P054 are located, shall not exceed 2.12 pounds per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated by performing an emission test in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201.

[Authority for term: OAC rule 3745-77-07(C)(1), PTI P0115983 and PTI P0111169]

c. Emission Limitation:

PM/PM_{10} emissions from the baghouse that serves the building where P035-P052 and P054 are located, shall not exceed 9.29 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable PM/PM_{10} emission limitation (2.12 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

[Authority for term: OAC rule 3745-77-07(C)(1), PTI P0115983 and PTI P0111169]

d. Emission Limitation:

Visible emissions from the baghouse that serves this building shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated by performing visible particulate emission observations in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), PTI P0115983 and P0111169]

e. Emission Limitation:

There shall be no visible fugitive particulate emissions from the building egress points (i.e., building windows, doors, roof monitors, etc.).

Applicable Compliance Method:

If required, compliance shall be demonstrated by performing visible particulate emission observations in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22.

[Authority for term: OAC rule 3745-17-03(B)(4), OAC rule 3745-77-07(C)(1), PTI P0115983 and P0111169]

g) Miscellaneous Requirements

(1) None.

35. Emissions Unit Group - Group of Grinders: P037, P038, P039, P040, P041, P042, P043, P044, P045, P046, P047, P048, P049, P050, P051, P052

EU ID	Operations, Property and/or Equipment Description
P037	WCR S1-2DC Small Cleaning Booth
P038	WCR S2-2DC Small Cleaning Booth
P039	WCR S3-2DC Small Cleaning Booth
P040	WCR S4-2DC Small Cleaning Booth
P041	WCR S5-2DC Small Cleaning Booth
P042	WCR S6-2DC Small Cleaning Booth
P043	WCR S1-3DC Large Cleaning Booth
P044	WCR S2-3DC Large Cleaning Booth
P045	WCR S3-3DC Large Cleaning Booth
P046	WCR S4-3DC Large Cleaning Booth
P047	WCR S5-3DC Large Cleaning Booth
P048	WCR S6-3DC Large Cleaning Booth
P049	WCR S7-3DC Large Cleaning Booth
P050	WCR S8-3DC Large Cleaning Booth
P051	WCR S9-3DC Large Cleaning Booth
P052	WCR S10-3DC Large Cleaning Booth

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) OAC rule 3745-31-05(E) (PTI P0115983)	Particulate matter (PM)/particulate matter less than 10 microns in diameter (PM_{10}) from P037 - P042 (each has 2 - 4500 cfm baghouses) shall not exceed 0.003 grain per dscf and 0.23 pound per hour, each. Particulate matter (PM)/particulate matter less than 10 microns in diameter (PM_{10}) from P043 - P052 (each has 3 - 4500 cfm baghouses) shall not exceed 0.003 grain per dscf and 0.35 pound per hour, each.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Particulate matter (PM)/ particulate matter less than 10 microns in diameter (PM_{10}) from the baghouse that serves the building where P035-P052 and P054 are located, shall not exceed 2.12 pounds per hour and 9.29 tons per year. Visible particulate emissions from the baghouse stack that serves this building shall not exceed 10% opacity as a 6-minute average. There shall be no visible emissions of fugitive dust from the building egress points (i.e., building windows, doors, roof monitors, etc.). See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations established pursuant to this rule are equivalent to the limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/1/2006	See b)(2)a and b)(2)c.
d.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
e.	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
f.	OAC rule 3745-17-07(B)	This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
g.	OAC rule 3745-17-08(B)	The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

(2) Additional Terms and Conditions

a. Permit to Install (P0115983) for these air contaminant sources take into account the following voluntary restrictions (including the use of any applicable air pollution control equipment), as provided by the permittee, for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

These emissions units shall be vented to a baghouse that vents inside the building, whenever these emissions units are in operation.

The building that these emission units baghouses vent to shall be vented to a baghouse at all times these emissions units are in operation.

The building shall be kept under negative pressure at all times these emissions units are in operation.

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05, as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U. S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U. S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U. S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter less than 10 microns in diameter and particulate matter from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

c) Operational Restrictions

(1) All interior pressure readings shall be lower than the pressure readings taken from the exterior of the building.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0115983]

(2) The direction of air flow through all building openings, at all times, shall be into the building.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0115983]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouses when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouses on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range of 0.5 - 6.0 inches of water, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouses shall be 0.5 - 6.0 inches of water, unless revisions are requested by the permittee and approved in writing by the Northeast District Office of the Ohio EPA. The permittee may request revisions to the

permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115983]

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving the building. 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 emissions incident; and

e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115983]

(3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure outside the building and the pressure inside the building, in inches of water. The pressure monitors shall be in operation at all times the emissions unit(s) is/are in operation. The permittee shall record pressure outside and inside the building on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115983]

(4) The permittee shall quarterly monitor the direction of air flow at all building openings by use of smoke tubes, streamers, or other air flow indicators, approved by the Northeast District Office of the Ohio EPA. The permittee shall record the date, time, and person performing this monitoring as well as the resulting air flow direction.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115983]

e) Reporting Requirements

(1) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115983]

(2) The permittee shall submit quarterly written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving the building; and

b. any corrective actions taken to eliminate the visible particulate emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115983]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify all readings that indicate the pressure of the interior of the building was greater than the pressure of the exterior of the building.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115983]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify all monitoring data that indicates the air flow at any building opening was leaving the building.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115983]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation:</u>

PM/PM_{10} emissions from emissions units P037 - P042 (each has 2 - 4500 cfm baghouses) shall not exceed 0.003 grain per dscf and 0.23 pound per hour, each.

Applicable Compliance Method:

If required, compliance shall be demonstrated by performing an emission test in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115983]

b. Emission Limitation:

PM/PM_{10} emissions from emissions units P043 - P052 (each has 3 - 4500 cfm baghouses) shall not exceed 0.003 grain per dscf and 0.35 pound per hour, each.

Applicable Compliance Method:

If required, compliance shall be demonstrated by performing an emission test in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115983]

c. Emission Limitation:

PM/PM_{10} emissions from the baghouse that serves the building where emissions units P035-P052 and P054 are located, shall not exceed 2.12 pounds per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated by performing an emission test in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115983]

d. Emission Limitation:

PM/PM_{10} emissions from the baghouse that serves the building where emissions units P035-P052 and P054 are located, shall not exceed 9.29 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable PM/PM_{10} emission limitation (2.12 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0115983]

e. Emission Limitation:

Visible particulate emissions from the baghouse stack that serves this building shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated by performing visible particulate emission observations in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1) and PTI P0115983]

f. Emission Limitation:

There shall be no visible emissions of fugitive dust from the building egress points (i.e., building windows, doors, roof monitors, etc.).

Applicable Compliance Method:

If required, compliance shall be demonstrated by performing visible emissions of fugitive dust observations in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22.

[Authority for term: OAC rule 3745-17-03(B)(4), OAC rule 3745-77-07(C)(1) and PTI P0115983]

g) Miscellaneous Requirements

(1) None.

36. Emissions Unit Group - New Furnaces: P901, P902

EU ID	Operations, Property and/or Equipment Description
P901	12 Ton Inductotherm Electric Induction Furnace, 5000 kW Coreless Furnace - Furnace Number 11.
P902	12 Ton Inductotherm Electric Induction Furnace, 5000 kW Coreless Furnace - Furnace Number 12.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(a) OAC rule 3745-31-05(E) (PTI P0103895)	$PM/PM_{10}/PM_{2.5}$ emissions from the baghouse stack shall not exceed 0.001 grain per dry standard cubic foot, 0.43 pound per hour and 1.88 tons per year.* Fugitive PM emissions shall not exceed 4.08 tons per year. Fugitive $PM_{10}/PM_{2.5}$ emissions shall not exceed 3.90 tons per year. See b)(2)c. * These emission limitations are for the egress of the baghouse regardless of the number of emissions units vented to the baghouse.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	The emission limitations required by this applicable rule are equivalent to and/or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(D)(1)(a). See b)(2)d.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)c and b)(2)e.
d.	OAC rule 3745-17-11(B)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(a).
e.	OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
f.	OAC rule 3745-17-07(B)	See b)(2)a.
g.	OAC rule 3745-17-08(B)	See b)(2)b.

(2) Additional Terms and Conditions

a. These emissions units are exempt from the visible particulate emission limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within an area identified in "Appendix A" of OAC rule 3745-17-08.

b. These emissions unit are not located within areas identified in "Appendix A" of OAC rule 3745-17-08; therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).

c. This permit takes into account the use of a baghouse system, whenever these emissions units are in operation, with minimum capture efficiency of 85 percent, by weight for PM, and enough control efficiency to demonstrate compliance with 0.001 grain per dry standard cubic foot, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements.

d. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

e. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter, particulate matter less than 10 microns in diameter, and particulate matter less than 2.5 microns in diameter from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.

c) Operational Restrictions

(1) The maximum annual production rate for each emissions unit shall not exceed 60,500 tons of metal processed, based upon a rolling, 12-month summation of production.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0103895]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

a. the amount of iron, in tons, processed through this emissions unit; and

b. the rolling, 12-month summation of the production rates.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

(3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a once per day basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The acceptable pressure drop shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted and the appropriate range is established to demonstrate compliance.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive dust emissions. These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month periods.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 60,500 tons of iron production rate restriction. These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

(3) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in “a” (above) where a prompt investigation was not conducted;

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

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

If no deviations/excursions occurred during a calendar quarter, the report shall so state that no deviations occurred during the reporting period.

The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

$PM/PM_{10}/PM_{2.5}$ emissions from the baghouse stack shall not exceed 0.001 grain per dry standard cubic foot and 0.43 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing procedures specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

b. Emission Limitation:

$PM/PM_{10}/PM_{2.5}$ emissions from the baghouse stack shall not exceed 1.88 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable particulate emission limitation (0.43 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

c. Emission Limitation:

Fugitive PM emissions shall not exceed 4.08 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = (EF x YP/2000) x (1 – 0.85)

where:

E = emission rate, tons per year;

EF = emission factor for PM from AP-42, Section 12.10, Gray Iron Foundries, version 1/95, Table 12.10-3; 0.9 lb PM/ton iron;

YP = yearly throughput of iron, per monitoring and record keeping requirements, tons per year;

2000 = conversion factor, pounds per ton; and

(1 – 0.85) = capture efficiency of baghouse pick-up points; assumed to be 85%.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

d. Emission Limitation:

Fugitive $PM_{10}/PM_{2.5}$ emissions shall not exceed 3.90 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

E = (EF x YP/2000) x (1 – 0.85)

where:

E = emission rate, tons per year;

EF = emission factor for $PM_{10}/PM_{2.5}$ from FIREDATABASE; 0.86 lb PM/ton iron;

YP = yearly throughput of iron, per monitoring and record keeping requirements, tons per year;

2000 = conversion factor, pounds per ton; and

(1 – 0.85) = capture efficiency of baghouse pick-up points; assumed to be 85%.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

e. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and PTI P0103895]

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

a. The emission testing shall be conducted within 180 days after the issuance or 180 days prior to the expiration of this permit for the emissions units (P031, P901 and P902).

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates,

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

for particulates: 40 CFR Part 60, Appendix A, Methods 1 through 5.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. During each emission test run, the pressure drop, in inches of water, across the baghouse shall be measured to establish an acceptable pressure drop range.

e. 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 Ohio EPA Northeast District Office. All emissions units vented to the baghouse shall be operated at or near their maximum capacities.

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

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

h. 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 Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0103895]

g) Miscellaneous Requirements

(1) None.