State of Ohio Environmental Protection Agency

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Columbus, OH 43216-1049

1/20/2009

Pamela Blakley *Via E-Mail Notification*
United States Environmental Protection Agency
Mail Code: AR-18J
77 West Jackson Blvd.
Chicago, IL 60604-3507

RE: PROPOSED AIR POLLUTION TITLE V PERMIT
Facility Name: The Quality Castings Company
Facility ID: 0285010001
Permit Type: Renewal
Permit Number: P0086421

Dear Ms. Coburn:

A proposed OAC Chapter 3745-77 Title V permit for the referenced facility has been issued for review by U.S. EPA. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page http://www.epa.state.oh.us/dapc in Microsoft Word and Adobe Acrobat format. If U.S. EPA does not object to this proposed permit, the permit will be processed for issuance as a final action not less than 45 days from the date of this letter. Please contact me at (614) 644-3631 by the end of the 45 day review period if you wish to object to 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

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

PROPOSED

Air Pollution Title V Permit
for
The Quality Castings Company

Facility ID: 0285010001
Permit Number: P0086421
Permit Type: Renewal
Issued: 1/20/2009
Effective: To be entered upon final issuance
Expiration: To be entered upon final issuance

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Air Pollution Title V Permit
for
The Quality Castings Company

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Authorization

Facility ID: 0285010001
Facility Description: Gray Iron Foundry
Application Number(s): A0017154, A0017155, A0017156, A0036482
Permit Number: P0086421
Permit Description: Renewal Title V permit
Permit Type: Renewal
Issue Date: 1/20/2009
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Superseded Permit Number:

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

The Quality Castings Company
1200 North Main Street
Orrville, OH 44667-0058

Ohio 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 43087
(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 (540 days) and no later than 6 months (180 days) prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
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

(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
(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 recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

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

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

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

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

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

(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 promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

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

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this 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 (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in 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."
(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

(5) Reports of any required monitoring and/or record keeping information shall be submitted to Ohio EPA DAPC, Northeast District Office.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. 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) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

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

c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with Standard Term and Condition 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 contaminent 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 official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

(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 appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

(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 appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:

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

(2) Compliance certifications shall include the following:

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

(b) The permittee's current compliance status.

(c) Whether compliance was continuous or intermittent.

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

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

(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 appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as

soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).
(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

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 Fed. Reg. 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 has 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.

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

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

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

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

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

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 the appropriate Ohio EPA District Office or local air agency.

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

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

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.
(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 (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in 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 potentials to emit; or

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

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) B.3

2. The following insignificant emissions unit is located at this facility:

   a) None.

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

3. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirements or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

   B006 - gas fired heater Inliner #3;

   B007 - gas fired heater cleaning room south #6;

   B008 - gas fired heater floor mold west #5;

   B009 - gas heater floor mold east #4;

   B010 - gas fired heater cleaning room north #7;

   B011 - gas fired heater core room south #9;

   B012 - gas fired heater core room north #10;

   B013 - gas fired heater Pangborn #8;

   B015 - emergency generator driven by diesel engine;

   B016 - emergency generator driven by natural gas engine;

   F001 - spent sand piles;

   F009 - nobake pour/cool line;

   P028 - core drying oven (north);

   Z001 - core drying oven (south);

   Z002 - ladle heating;

   Z003 - ladle lining mixer;

Z004 - welding;

Z006 - transfer ladles;

Z009 - heat treat furnace (south);

Z010 - heat treat furnace (north);

Z011 - Shell blower #1 (MC-3);

Z012 - Shell blower #2 (U-150 south);

Z013 - Shell blower #3 (U-150 north);

Z014 - Shell blower #4 (U-180 south);

Z015 - Shell blower #5 (U-180 north);

Z016 - Shell blower #6 (803 south);

Z017 - Shell blower #7 (803 north);

Z018 - Shell blower #8 (X-180);

Z019 - Shell blower #9 (U-360);

Z037 - cold cleaner (maintenance);

Z038 - cold cleaner (tool repair);

Z039 - cold cleaner (lift truck);

Z040 - cold cleaner (machine ctr.);

Z041 - cold cleaner (pattern shop);

Z042 - wood saw;

Z043 - belt sander;

Z044 - disk sander;

Z045 – Victaulic Grinding Line – Sander #1; and

Z046 - Victaulic Grinding Line – Sander #2.

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

4. All asbestos renovation and demolition activities conducted at this facility shall be performed in accordance with the applicable requirements specified in 40 CFR Part 61 and OAC Chapter 3745-20.

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

6. In order to avoid the requirements of 40 CFR Part 63, Subpart EEEEE, the permittee has voluntarily accepted a production restriction of 60,000 tons of iron produced, based on a rolling, 12 month summation.

   Through this production restriction the permittee's potential to emit for hazardous air pollutants (HAPs)* will be lowered to 9.9** tpy for the highest single HAP and to 24.9** tpy for all HAPs combined.

7. To ensure that the production restriction and emission limitations are not exceeded, the permittee has agreed to accept the following recordkeeping requirement:

   The permittee shall maintain monthly records of the rolling, 12-month summations of the production rates [i.e., the rolling, 12-month summation of production rates shall be calculated by adding the production rates for the preceding 11 calendar months plus the production rate for the current calendar month].

   * a listing of HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Northeast District Office of Ohio EPA.

   ** The potential to emit was used for emissions units not directly restricted by the production restriction.

8. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production restriction.

9. For units not directly restricted by the annual production restriction, the permittee shall maintain calculations of the potential to emit for each emissions unit.

   Prior to the installation of any new emissions units that emit any HAPs, the permittee shall submit a revised potential to emit analysis to demonstrate that the emissions unit will not cause the facility to become a major source of HAPs.

10. The permittee shall comply with the requirements of 40 CFR, Part 63, Subpart ZZZZZ - National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources by the compliance dates specified in this rule.

C. Emissions Unit Terms and Conditions

1. F008, Nobake Mold Mixing & Making Line

Operations, Property and/or Equipment Description:

Phenolic Urethane nobake mold system

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 3745-21-07(G)(2)	exempt, pursuant to OAC rule 3745-21-07(G)(9)(i) [See b)(2)a.]
b.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to the uncaptured fugitive emissions from this emissions unit.
c.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to the visible fugitive emissions from this emissions unit.
d.	OAC rule 3745-31-05(A)(3) (PTI 02-9648)	Particulate emissions (PE) shall not exceed 0.52 lb/hr from the bin vent stack. [See b)(2)c.] Visible emissions of particulate matter from the bin vent stack shall not exceed 20% opacity, as a 3-minute average. Emissions of volatile organic compounds (VOC) shall not exceed 8 lbs/hr and 40 lbs/day. [See b)(2)b.] The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-21-07(G)(9)(i).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	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(A)(3).
f.	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. Although OAC rule 3745-21-07(G)(9)(i) specifies an exemption for the use of a phenolic urethane no-bake resin binder system in foundry core-making and mold-making operations, the exemption is not yet part of the federally approved SIP. This exemption was promulgated by the Ohio EPA and became effective on June 15, 1999. The Ohio EPA has received confirmation from the USEPA concerning the acceptability of this exemption, and the permittee has agreed to consider the exemption as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of the exemption as a revision to the Ohio SIP for ozone.

Note: The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

b. No recordkeeping and monitoring is required for the hourly VOC emissions limit because the maximum uncontrolled emission rate of VOC cannot exceed the limit.

c. The pneumatic sand conveying, from the silo to the hopper shall be vented to the bin vent.

c) Operational Restrictions

(1) The usage of phenolic urethane resin shall be limited to 347 pounds per day.

[Authority for term: PTI 02-9648 and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain the following records each day this emissions unit operates:

a. the company identification of the liquid organic material used;

b. the pounds of sand mixed;

c. an estimate of the daily VOC emission rate [see f)(1)c.]; and

d. the usage of phenolic urethane resin, in pounds.

[Authority for term: PTI 02-9648 and OAC rule 3745-77-07(C)(1)]

(2) The permittee shall perform monthly* checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the bin vent serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

* Because this operation is performed infrequently, monthly visible emission checks are deemed acceptable to ensure ongoing compliance with the particulate emission limitations.

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

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which the VOC emissions exceeded 40 pounds per day, and the actual VOC emissions for each such day.

[Authority for term: PTI 02-9648 and OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which the phenolic urethane resin usage exceeded 347 pounds.

[Authority for term: PTI 02-9648 and OAC rule 3745-77-07(C)(1)]

(3) The quarterly deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

(4) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the bin vent serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the 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)]

(5) Prior to changing resins in this system, the permittee shall send product specification sheets to the Ohio EPA, Northeast District Office.

[Authority for term: PTI 02-9648 and OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PE shall not exceed 0.52 lb/hr from the bin vent stack.

Applicable Compliance Method:

The permittee shall demonstrate compliance using the following equation:

E = [0.03 gr/dscf x 0.73 cf/min x 60 min/hour x 1 lb/7000 gr] + [Ti x 0.04 lb PE/ton iron]

where:

E = pounds PE per hour; and

Ti = tons of iron produced per hour.

The emission factor of 0.04 lb PE/ton iron produced is specified in Table 2.7-1 of Ohio EPA's document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September 1980.

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

b. Emission Limitation:

Visible emissions of particulate matter from the bin vent stack shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-17-03(B)(3) and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

Emissions of VOC shall not exceed 40 lbs/day.

Applicable Compliance Method:

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

E = sand usage rate (in tons per day) X emission factor of 1.3 lb VOC/ton sand

where:

E = VOC emission rate (lbs/day); and

emission factor = 1.17 lb VOC/ton sand (resin) + 0.13 lb VOC/ton sand (core release) = 1.3 lbs VOC per ton of sand for phenolic urethane nobake binder system (based on emissions data obtained by the 1997 OCMA's study).

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

d. Emission Limitation:

Emissions of VOC shall not exceed 8 lbs/hr.

Applicable Compliance Method:

If required, emission testing shall be performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 18, 25 or 25A, as appropriate.

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

2. F010, Nobake Shakeout

Operations, Property and/or Equipment Description:

Shakeout of nobake molds.

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 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
b.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
c.	OAC rule 3745-31-05(A)(3) (PTI 02-3225)	Particulate emissions (PE) shall not exceed 4.16 lbs/hr and 18.2 tpy. Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average. Emissions of volatile organic compounds (VOC) shall not exceed 8 lbs/hr, 40 lbs/day and 7.3 tpy. [See b)(2)a.]

(2) Additional Terms and Conditions

a. No recordkeeping and monitoring are required for the VOC emission limits because the maximum uncontrolled emission rates of VOC cannot exceed the limits.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the tons of iron processed through the shakeout and the hours of operation of this emissions unit.

[Authority for term: PTI 02-3225 and OAC rule 3745-77-07(C)(1)]

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

e. any corrective actions taken to 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.

* Because this operation is performed infrequently and because the PTI did not require controls for this emissions unit, monthly visible emission checks are deemed acceptable to ensure ongoing compliance with the particulate emission limitations.

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

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PE shall not exceed 18.2 tpy.

Applicable Compliance Method:

Compliance shall be determined in accordance with the following equation:

E = Ty x 3.2 lbs PE/ton iron x 1/2000 lbs per ton

where:

E = tons PE per year; and

Ty = tons of iron per year processed through the shakeout (11,388 tpy).

The emission factor (3.2 lbs PE/ton iron) is specified in US EPA reference document AP-42, Compilation of Emission Factors, Section 12.10, Table 12.10-7 (1/95).

[Authority for term: PTI 02-3225 and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

PE shall not exceed 4.16 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined in accordance with the following equation:

E = Th x 3.2 lbs PE/ton iron

where:

E = lbs PE per hour; and

Th = maximum tons of iron per hour processed through the shakeout (1.3 tons/hr).

The emission factor (3.2 lbs PE/ton iron) is specified in US EPA reference document AP-42, Compilation of Emission Factors, Section 12.10, Table 12.10-7 (1/95).

[Authority for term: PTI 02-3225 and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

Emissions of VOC shall not exceed 8 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined in accordance with the following equation:

E = Th x 1.2 lbs VOC/ton iron

where:

E = lbs VOC emitted per hour; and

The = maximum tons of iron per hour processed through the shakeout (1.3 tons/hr).

The emission factor (1.2 lbs VOC/ton iron) is specified in US EPA reference document Factor Information Retrieval Data System, Version 6.25, SCC 30400331.

[Authority for term: PTI 02-3225 and OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

Emissions of VOC shall not exceed 40 lbs/day.

Applicable Compliance Method:

Compliance shall be determined in accordance with the following equation:

E = Td x 1.2 lbs VOC/ton iron

where:

E = lbs VOC emitted per day; and

Td = maximum tons of iron per day processed through the shakeout (31.2 tons/day).

The emission factor (1.2 lbs VOC/ton iron) is specified in US EPA reference document Factor Information Retrieval Data System, Version 6.25, SCC 30400331.

[Authority for term: PTI 02-3225 and OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

Emissions of VOC shall not exceed 7.3 tpy.

Applicable Compliance Method:

Compliance shall be determined in accordance with the following equation:

E = Ty x 1.2 lbs VOC/ton iron x 1/2000 (ton/pounds)

where:

E = tons VOC emitted per year; and

Ty = tons of iron per year processed through the shakeout (11,388 tpy).

The emission factor (1.2 lbs VOC/ton iron) is specified in US EPA reference document Factor Information Retrieval Data System, Version 6.25, SCC 30400331.

[Authority for term: PTI 02-3225 and OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:

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

[Authority for term: PTI 02-3225, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

3. F013, Inliner Mold Line

Operations, Property and/or Equipment Description:

Green sand molding using the Osborn Inliner automatic molding machine

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 3745-21-07(G)	Exempt [See b)(2)a.]
b.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
c.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
d.	OAC rule 3745-31-05(A)(3) (PTI 02-9754)	Particulate emissions (PE) shall not exceed 0.5 pound per hour. The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-21-07(G) and OAC rule 3745-17-07(B).

(2) Additional Terms and Conditions

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

Note: The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain the following records for all materials used in this emissions unit

a. the identification of the chemical compound and its physical state at standard conditions; and

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

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

(2) The permittee shall maintain daily records that document the average production rate, in tons of iron per hour.

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

(3) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive 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.

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

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which any photochemically reactive liquid organic materials were employed, an identification of said materials, and the number of pounds OC emitted each such day.

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

(2) The quarterly deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

(3) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from this emissions unit, and (b) describe any corrective actions taken to 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 six-month period.

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

f) Testing Requirements

(1) Compliance with the particulate emission limitation in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PE shall not exceed 0.5 pound per hour.

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum production rate (tons iron/hr) by the emission factor of 0.04 lb PE/ton iron.

The emission factor (0.04 lb PE/ton iron) is specified in Table 2.7-1 of Ohio EPA's document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September 1980.

If required, emission testing shall be performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

[Authority for term: PTI 02-9754, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

4. F017, 722 Mold Line

Operations, Property and/or Equipment Description:

Green sand molding using the Osborn 722 cope and drag style of molding

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 3745-21-07(G)(2)	exempt [See b)(2)a.]
b.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
c.	OAC rule 3745-31-05(A)(3) (PTI 02-0374)	Particulate emissions (PE) shall not exceed 0.40 lb/hr. Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average. Emissions of volatile organic compounds (VOC) shall not exceed 13.5 lbs/hr, as an average over each day and 22.5 tpy, as a rolling, 12-month summation. The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

(2) Additional Terms and Conditions

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

Note: The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

c) Operational Restrictions

(1) The amount of metal poured in the Osborn 722 mold making line shall not exceed 30,000 tons during each rolling, 12-month period.

[Authority for term: PTI 02-0374 and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following recordkeeping requirements are as stringent as or more stringent than the recordkeeping requirements contained in permit-to-install 02-10374, issued on December 18,1996: d)(2), d)(3), d)(4), and d)(5). The reporting requirements contained in the above - referenced permit-to-install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the permit-to-install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)]

(2) The permittee shall maintain the following records on all materials used in this emissions unit:

a. the identification of the chemical compound and its physical state at standard conditions; and

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

[Authority for term: PTI 02-0374 and OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain the following records each month for this emissions unit:

a. the company identification of the mold release used;

b. the total amount of mold release used, in gallons;

c. the VOC content of the mold release, in pounds of VOC/pound of mold release;

d. the number of hours of operation;

e. an estimate of the total VOC emission rate, in pounds, calculated as (b) x (the density of the mold release) x (c); and

f. an estimate of the average hourly VOC emission rate, calculated as (e/d).

[Authority for term: PTI 02-0374 and OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain monthly records that list the following information for this emissions unit:

a. tons of iron poured;

b. the rolling, 12-month summation of the tons of iron poured;

c. the number of hours of operation for this emissions unit;

d. the average hourly PE emissions, in lbs PE/hour, calculated as [(a.) / (c.)] x 0.04 lb PE/ton iron;

e. the VOC emissions (tons); and

f. the rolling, 12-month summation of the VOC emissions (tons).

0.04 lb PE/ton iron is an emission factor in lbs PE per ton iron specified in Table 2.7-1 of Ohio EPA's document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September 1980.

[Authority for term: PTI 02-0374 and OAC rule 3745-77-07(C)(1)]

(5) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive 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 minimize or eliminate the visible emissions.

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

e) Reporting Requirements

(1) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in permit-to-install 02-10374 modification, issued on December 18, 1996: e)(2), e)(3), e)(4), e)(5), e)(6) and e)(7). The reporting requirements contained in the above - referenced permit-to-install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the permit-to-install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)]

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

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

(3) The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which the average hourly VOC emission rate of 13.5 pounds was exceeded, and the actual average hourly VOC emission rate for each such day.

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

(4) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation of 30,000 tons metal, and the actual rolling, 12-month production rate for each such exceedance.

[Authority for term: PTI 02-0374 and OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month VOC emission limitation of 22.5 tons and the actual rolling, 12-month VOC emission rate for each such exceedance.

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

(6) The quarterly deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

(7) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from this emissions unit, and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PE shall not exceed 0.40 lb/hr.

Applicable Compliance Method:

Compliance shall be determined based upon the recordkeeping requirements specified in d)(4)d.

[Authority for term: PTI 02-0374 and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

[Authority for term: PTI 02-0374, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

Emissions of VOC shall not exceed 13.5 lbs/hr, as an average over each day.

Applicable Compliance Method:

Compliance with the VOC emission limitation shall be based on the recordkeeping requirements specified in d)(3).

[Authority for term: PTI 02-0374 and OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

Emissions of VOC shall not exceed 22.5 tpy, as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the VOC emission limitation shall be based on the recordkeeping requirements specified in d)(3) and d)(4) of these terms. To determine the monthly VOC emission rate (tons), sum the daily VOC emission rate (lbs/day) for the entire month and divide by 2000 (lbs/ton).

[Authority for term: PTI 02-0374 and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

5. F018, 722 Pour/cool Line

Operations, Property and/or Equipment Description:

Pouring and cooling area for the molds made on the Osborn 722 molding machine

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 3745-18-06(E)(2)	Emissions of sulfur dioxide (SO2) shall not exceed 481.5 lbs/hr. [See b)(2)a.]
b.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
c.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
d.	OAC rule 3745-31-05(A)(3) (PTI 02-9748)	Particulate emissions (PE) shall not exceed 4.0 lbs/hr and 17.6 tpy. Visible emissions of fugitive dust shall not exceed 5% opacity, as a 6-minute average. Emissions of volatile organic compounds (VOC) shall not exceed 20 lbs/day and 3.7 tpy. The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-18-06(E)(2) and OAC rule 3745-21-07(G).

(2) Additional Terms and Conditions

a. No recordkeeping and monitoring is required for the SO2 emissions limit because the maximum uncontrolled emission rate of SO2 cannot exceed the limit.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record daily the hours this emissions unit was operated.

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

(2) At the end of each month, the permittee shall record the following information for each day to determine the emission rates of PE, VOC and SO2:

a. the total metal production, in tons;

b. the hours this emissions unit was in operation;

c. the amount of iron poured, in tons;

d. the hourly PE rate, in lbs PE/hour, calculated as [(c.) X 0.45 lb PE/ton iron poured] / (b.);

e. the hourly SO2 emission rate, in lbs SO2/hour, calculated as [(c.) x 0.02 lb/ton iron poured]/(b.); and

f. the daily VOC emission rate, in lbs VOC/day, calculated as [(c.) x 0.14 lb/ton iron poured].

0.45 = emission factor in lbs PE per ton of iron poured (from emissions testing performed at this facility on January 18, 1996, for emissions unit P036

0.02 = emission factor in lb SO2/ton iron poured is specified in US EPA reference document Factor Information Retrieval Data System, Version 6.25 SCC 30400320

0.14 = emission factor in lbs VOC per ton iron poured (from SCC emission factor 30400320)

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

(3) 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 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 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.

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

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that include an identification of each month during which the average hourly PE exceeded 4.0 pounds, and the actual average PE rate for each such month.

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

(2) The permittee shall submit quarterly deviation (excursion) reports that include an identification of each month during which the daily VOC emissions exceeded 20 pounds, and the actual VOC emissions for each such month.

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

(3) The quarterly deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

(4) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible 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 six-month period.

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Emissions of SO2 shall not exceed 481.5 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.02 lb SO2/ton of iron by the maximum amount of metal that can be poured in an hour. 0.02 lb SO2/ton iron is the emission factor specified in US EPA reference document Factor Information Retrieval Data System, Version 6.25, SCC 30400320.

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

b. Emission Limitation:

PE shall not exceed 4.0 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined based upon the recordkeeping requirements specified in d)(2).

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

c. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraph (B)(3)(b) of OAC rule 3745-17-03.

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

Emissions of VOC shall not exceed 20 lbs/day.

Applicable Compliance Method:

Compliance shall be determined based upon the recordkeeping requirements specified in d)(2).

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

e. Emission Limitation:

PE shall not exceed 17.6 tpy.

Applicable Compliance Method:

Compliance shall be determined based upon the summation of the recordkeeping requirements specified in d)(2).

To determine compliance, the following equation shall be used:

$E = (I \times 0.45) \times 1/2000$

where:

E = the tons PE emitted per year;

I = tons of iron poured per year; and

0.45 = emission factor in lbs PE per ton of iron poured (from emissions testing performed at this facility on January 18, 1996, for emissions unit P036).

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

f. Emission Limitation:

Emissions of VOC shall not exceed 3.7 tpy.

Applicable Compliance Method:

Compliance shall be determined based upon the recordkeeping requirements specified in d)(2).

To determine compliance the following equation shall be used:

E = I x 0.14 x 1/2000

where:

E = tons VOC emitted per year;

I = tons of iron poured per year; and

0.14 = emission factor in lbs VOC per ton iron poured (from SCC emission factor 30400320).

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

g) Miscellaneous Requirements

(1) None.

6. F019, Nobake Core Line including mixer

Operations, Property and/or Equipment Description:

Phenolic Urethane nobake core production

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 3745-21-07(G)(9)(i)	exempt, pursuant to OAC rule 3745-21-07(G)(9)(i)\ [See b)(2)a.]
b.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
c.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
d.	OAC rule 3745-31-05(A)(3) (PTI 02-9755)	Particulate emissions (PE) shall not exceed 0.75 lb/hr and 3.3 tpy. Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average. Emissions of volatile organic compounds (VOC) shall not exceed an average of 8 lbs/hr, as an average over each day, 40 lbs/day and 7.3 tpy. The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-21-07(G).

(2) Additional Terms and Conditions

a. Although OAC rule 3745-21-07(G)(9)(i) specifies an exemption for the use of a phenolic urethane no-bake resin binder system in foundry core-making and mold-making operations, the exemption is not yet part of the federally approved SIP. This new exemption was promulgated by the Ohio EPA and became effective on June 15, 1999. The Ohio EPA has received confirmation from the USEPA concerning the acceptability of this exemption, and the permittee has agreed to consider the exemption as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of the exemption as a revision to the Ohio SIP for ozone.

Note: The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain the following records each day this emissions unit operates:

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

b. the amount of sand mixed, in pounds;

c. the number of hours of operation;

d. the VOC emission factor for the core release being employed, in lbs VOC/ton of sand;

e. an estimate of the daily VOC emission rate, in pounds VOC/day, calculated as (b.) x (1.17 + X* lb VOC/ton sand);

f. an estimate of the average hourly VOC emission rate (pounds/hour), calculated as (e./c.); and

g. the average hourly PE emissions, in lbs PE/hour, calculated as (b.) x 0.38 lb PE/ton sand / (c.).

0.38 lb PE/ton sand is the sum of two emission factors: core making (0.35) and mechanical core sand unloading (0.03), both specified in Table 2.7-1 of Ohio EPA's document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September 1980.

*The emission factor for VOC = 1.17 lb VOC/ton sand (resin) + X lb VOC/ton sand (core release, where X is the emission factor for the core release being employed) = 1.17 + X lbs VOC per ton of sand for phenolic urethane nobake binder systems (based on emissions data obtained by the 1997 OCMA study).

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

(2) The permittee shall perform monthly* checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive 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 minimize or eliminate the visible emissions.

* Due to the nature of the operation of this unit (sand is combined with resin and catalyst additions yielding minimal or no visible emissions), monthly visible emission checks are deemed acceptable to ensure ongoing compliance with the particulate emission limitations.

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

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which the average hourly VOC emissions exceeded 8.0 pounds, and the actual average hourly VOC emissions for each such day.

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

(2) The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which the daily VOC emissions exceeded 40 pounds, and the actual daily VOC emissions for each such day.

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

(3) The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which the average hourly PE emissions exceeded 0.75 pound, and the actual average hourly PE emissions.

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

(4) The quarterly deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

(5) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from this emissions unit, and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PE shall not exceed 0.75 lb/hr.

Applicable Compliance Method:

Compliance shall be determined based upon the recordkeeping requirements specified in d)(1).

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

b. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

Emissions of VOC shall not exceed 40 lbs/day.

Applicable Compliance Method:

Compliance is based upon the recordkeeping requirements specified in d)(1).

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

d. Emission Limitation:

Emissions of VOC shall not exceed an average of 8 lbs/hr, as an average over each day.

Applicable Compliance Method:

Compliance is based on the recordkeeping requirements specified in d)(1).

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

e. Emission Limitation:

PE shall not exceed 3.3 tpy.

Applicable Compliance Method:

Compliance shall be determined based upon the summation of the recordkeeping requirements specified in d)(1).

To determine compliance the following equation shall be used:

E = I x 0.38 x 1/2000

where:

E = tons PE emitted per year;

I = tons of sand used per year; and

0.38 lb PE/ton sand is the sum of two emission factors: core making (0.35) and mechanical core sand unloading (0.03), both specified in Table 2.7-1 of Ohio EPA's document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September 1980.

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

f. Emission Limitation:

Emissions of VOC shall not exceed 7.3 tpy.

Applicable Compliance Method:

Compliance shall be determined based upon the recordkeeping requirements specified in d)(1).

To determine compliance the following equation shall be used:

E = I x 0.14 x 1/2000

where:

E = tons VOC emitted per year;

I = tons of sand poured per year; and

0.14 = emission factor in lbs VOC per ton sand poured (from SCC emission factor 30400320).

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

g) Miscellaneous Requirements

(1) None.

7. F020, Ductile Iron Inoculation Inliner I

Operations, Property and/or Equipment Description:

Sandwich inoculation

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 02-20474)	Particulate emissions (PE) from the baghouse stack serving this emissions unit shall not exceed 0.010 gr/dscf, 4.29 lbs/hr and 18.79 tpy. Particulate fugitive emissions shall not exceed 15.77 tpy. Visible particulate emissions from the baghouse stack shall not exceed 5% opacity, as a 6-minute average. See b)(2)a.
b.	OAC rules 3745-17-07(A), 3745-17-07(B), 3745-17-08(B) and 3745-17-11(B)	The requirements specified in these rules are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3).
c.	40 CFR Part 64, Compliance Assurance Monitoring (CAM)	See c)(1), d)(1), d)(3), d)(4), e)(1), e)(4) and e)(5).

(2) Additional Terms and Conditions

a. The collection efficiency of the air pollution capture hoods shall be sufficient to minimize or eliminate visible emissions of fugitive dust at all points of capture. The visible emissions of fugitive dust from the building that encloses this emissions unit shall not exceed 5% opacity, as a 6-minute average.

b. The annual emission limitations above are based on the potential to emit for this unit. Therefore, no monitoring and recordkeeping requirements are necessary to demonstrate compliance with these limits.

c. This emissions unit is operationally united with P002 (twelve snag grinders), P012 (Pangborn South tumblast machine), P013 (South Wheelabrator shotblast machine), P026 (North Wheelabrator shotblast machine), and P040 (Pangborn North tumble blast machine); and all these emissions units are controlled by a common baghouse.

c) Operational Restrictions

(1) The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water column at all times while the emissions unit is in operation.

[Authority for term: PTI 02-20474, OAC rule 3745-77-07(A)(1) and 40 CFR, Part 64]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: PTI 02-20474, OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(2) The permittee shall perform weekly 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 eliminate the visible emissions.

[Authority for term: PTI 02-20474 and OAC rule 3745-77-07(C)(1)]

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

[Authority for term: PTI 02-20474, OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(4) The permittee shall inspect the baghouse monthly and record the following information:

a. the date and time of the inspection;

b. any portion of the cleaning system, conveying system or hoppers that was not operating properly; and

c. any corrective action(s) taken.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(5) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #02-20474, issued on March 8, 2005: d)(2). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

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

(2) The quarterly deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: PTI 02-20474, OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(3) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to 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: PTI 02-20474 and OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible

particulate emissions. These reports shall be submitted to the Director (the 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: PTI 02-20474, OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(5) The permittee shall submit quarterly reports identifying all months during which a baghouse inspection was not performed.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(6) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #02-20474, issued on March 8, 2005: e)(3). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) and b)(2) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PE from the baghouse stack serving this emissions unit shall not exceed 0.010 gr/dscf and 4.29 lbs/hr.

Applicable Compliance Method:

Compliance with the above PE limitations shall be determined by stack testing as specified in f)(2).

The hourly limit of 4.29 pounds per hour is based on a grain loading limit of 0.010 gr/dscf and the gas flow rate for the baghouse of 50,000 SCFM.

[Authority for term: PTI 02-20474, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

PE from the baghouse stack serving this emissions unit shall not exceed 18.79 tpy.

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the short-term allowable particulate emission limitation (4.29 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: PTI 02-20474 and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

Particulate fugitive emissions shall not exceed 15.77 tpy.

Applicable Compliance Method:

Compliance with the annual fugitive emission limitation shall be determined using the following equation:

A = EF x P x (1 - CE) x 8,760 hrs/yr / 2,000 lbs/ton

where:

A = annual fugitive emission rate (tpy);

EF = Emission factor of 4 lbs/ton of iron processed from FIRE Version 6.25, SCC 3-04-003-10;

P = maximum hourly process weight rate (9 tons/hr); and

CE = estimated fractional capture efficiency (0.90).

[Authority for term: PTI 02-20474 and OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

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

[Authority for term: PTI 02-20474, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

The visible emissions of fugitive dust from the building that encloses this emissions unit shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

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

[Authority for term: PTI 02-20474, OAC rule 3745-15-04(A) 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 a time frame beginning July 1, 2012 and ending December 31, 2012.

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate emissions and to determine the visible particulate emissions from the baghouse serving this emissions unit.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A.

d. The test(s) shall be conducted while this emissions unit and emissions units P002, P012, P013, P026 and P040 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA Northeast District Office.

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).

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.

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).

[Authority for term: PTI 02-20474, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

8. F021, Ductile Iron Inoculation Back Floor II

Operations, Property and/or Equipment Description:

Sandwich inoculation

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 02-20346)	Particulate emissions (PE) from the baghouse serving this emissions unit and emissions units P021, P039 and P902 shall not exceed 0.010 gr/dscf, 6.0 lbs/hr and 26.28 tpy. Particulate fugitive emissions shall not exceed 8.76 tpy. Visible particulate emissions from the baghouse stack shall not exceed 5% opacity, as a 6-minute average. See b)(2)a.
b.	OAC rules 3745-17-07(A), 3745-17-07(B), 3745-17-08(B) and 3745-17-11(B)	The requirements specified in these rules are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The collection efficiency of the air pollution capture hoods shall be sufficient to minimize or eliminate visible emissions of fugitive dust at all points of capture. The visible emissions of fugitive dust from the building that encloses this emissions unit shall not exceed 5% opacity, as a 6-minute average.

b. The annual emission limitations above are based on the potential to emit for this unit. Therefore, no monitoring and recordkeeping requirements are necessary to demonstrate compliance with these limits.

c. This emissions unit is operationally united with P021 (Tabor cut-off saw), P039 (Fischer Pushup/Punchout) and P902 (Back floor mold sand handling system); and all these emissions units are controlled by a common baghouse.

c) Operational Restrictions

(1) The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water column at all times while the emissions unit is in operation.

[Authority for term: PTI 02-20346 and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: PTI 02-20346 and OAC rule 3745-77-07(C)(1)]

(2) The permittee shall perform weekly 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 eliminate the visible emissions.

[Authority for term: PTI 02-20346 and OAC rule 3745-77-07(C)(1)]

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

[Authority for term: PTI 02-20346 and OAC rule 3745-77-07(C)(1)]

(4) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #02-20346, issued on February 10, 2005: d)(2). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

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

The quarterly deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: PTI 02-20346 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 fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the 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: PTI 02-20346 and OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the 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: PTI 02-20346 and OAC rule 3745-77-07(C)(1)]

(4) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #02-20346, issued on February 10, 2005: e)(2). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) and b)(2) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PE from the baghouse serving this emissions unit and emissions units P021, P039 and P902 shall not exceed 0.010 gr/dscf, 6.0 lbs/hr.

Applicable Compliance Method:

Compliance with the above PE limitations shall be determined by stack testing as specified in f)(2).

The hourly limit of 6.0 pounds per hour is based on a grain loading limit of 0.010 gr/dscf and the gas flow rate for the baghouse of 70,000 SCFM.

[Authority for term: PTI 02-20346, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

PE from the baghouse serving this emissions unit and emissions units P021, P039 and P902 shall not exceed 26.28 tpy.

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the short-term allowable particulate emission limitation (6.0 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: PTI 02-20346 and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

Particulate fugitive emissions shall not exceed 8.76 tpy.

Applicable Compliance Method:

Compliance with the annual fugitive emission limitation shall be determined using the following equation:

A = EF x P x (1 - CE) x 8,760 hrs/yr / 2,000 lbs/ton

where:

A = annual fugitive emission rate (tpy);

EF = Emission factor of 4 lbs/ton of iron processed from FIRE Version 6.25, SCC 3-04-003-10;
P = maximum hourly process weight rate (5 tons/hr); and

CE = estimated fractional capture efficiency (0.90).

[Authority for term: PTI 02-20346 and OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

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

[Authority for term: PTI 02-20346, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

The visible emissions of fugitive dust from the building that encloses this emissions unit shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

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

[Authority for term: PTI 02-20346, OAC rule 3745-15-04(A) 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 a time frame beginning July 1, 2012 and ending December 31, 2012.

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate emissions and to determine the visible particulate emissions from the baghouse serving this emissions unit.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A.

d. The test(s) shall be conducted while this emissions unit and emissions units P021, P039 and P902 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA Northeast District Office.

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).

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.

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).

[Authority for term: PTI 02-20346, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

9. F023, Mold Sand Receiving and Transfer

Operations, Property and/or Equipment Description:

Unloading mold sand from trucks and transferring storage hopper/silo

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 3745-17-07(A)	In accordance with paragraph (A)(3)(h) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(A) shall not apply to this emissions unit.
b.	OAC rule 3745-17-11(A)	exempt See b)(2)a.
c.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
d.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.

(2) Additional Terms and Conditions

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

b. The PE from the silos shall be vented to the bin vents serving the silos.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

10. F024, Fischer Mold Line

Operations, Property and/or Equipment Description:

Green sand mold making using compression sand into cope and drag flasks

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 02-20457)	Emissions of particulate matter (PM)/particulate matter less than 10 microns in diameter (PM10) shall not exceed 0.40 lb/hr. Organic compounds (OC) emissions shall not exceed 7.40 lbs/hr. Visible emissions of fugitive dust shall not exceed 5% opacity, as a 6-minute average.
b.	OAC rule 3745-31-05(D) (PTI 02-20457)	Emissions of PM/PM10 shall not exceed 0.38 tpy based upon a rolling, 12-month period. OC emissions shall not exceed 3.70 tpy based upon a rolling, 12-month period.
c.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
d.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
e.	OAC rule 3745-21-07(G)	This emissions unit is exempt from the requirements of this rule pursuant to OAC rule 3745-21-07(G)(9). See b)(2)a.

(2) Additional Terms and Conditions

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

Note: The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

b. The hourly emission limitations are based on this emissions unit's potential to emit. Therefore, no recordkeeping/reporting requirements are necessary to determine compliance with these limits.

c) Operational Restrictions

(1) The maximum annual iron production for this emissions unit shall not exceed 19,000 tpy, based upon a rolling, 12-month summation. The maximum annual OC emissions shall not exceed 3.70 tpy, based upon a rolling, 12-month summation.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

a. the metal production rate for each month; and

b. the rolling, 12-month summation of the metal production rates.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain monthly records of the following information

a. the name and identification of each liquid organic material employed in this emissions unit; and

b. a determination whether the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain the following records each month for this emissions unit:

a. the company identification of the mold release used;

b. the total amount of mold release used, in gallons;

c. the OC content of the mold release, in pounds of OC/pound of mold release;

d. the number of hours of operation;

e. an estimate of the total OC emission rate, in pounds, calculated as (b) x (the density of the mold release) x (c);

f. an estimate of the average hourly OC emission rate, calculated as (e/d); and

g. the rolling, 12-month summation of OC emissions.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

(4) The permittee shall perform weekly 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 eliminate the visible emissions.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

(5) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #02-20457, issued on June 2, 2005: d)(4). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month metal production rate restriction and of the rolling, 12-month OC emission limitation.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit quarterly deviation (excursion) reports that include an identification of each month during which a photochemically reactive material was employed.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which the average hourly OC emissions exceeded the emissions limitation of 7.40 pounds, and the actual average hourly OC emissions.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

(4) Quarterly deviation (excursion) reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

(5) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to 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 six-month period.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

(6) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #02-20457, issued on June 2, 2005: e)(5). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) and c)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Emissions of PM/PM10 shall not exceed 0.40 lb/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined using an emission factor of 0.04 lb of PE/ton of iron specified in Table 2.7-1 of Ohio EPA's document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September 1980 and the maximum hourly production rate of 10 tons/hr.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

OC emissions shall not exceed 7.40 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by the recordkeeping requirements specified in d)(3).

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

Emissions of PM/PM10 shall not exceed 0.38 tpy based upon a rolling, 12-month period.

OC emissions shall not exceed 3.70 tpy based upon a rolling, 12-month period.

Applicable Compliance Method:

The annual emission limitations were established by multiplying the maximum annual iron production rate of 19,000 tons by the respective emission factors referenced in f)(1)a. and f)(1)b. and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with this annual iron production rate, compliance with the emission limitations will be assumed. Compliance with the annual production rate shall be demonstrated by the monitoring and recordkeeping in d)(1).

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined using Method 9 of 40 CFR Part 60, Appendix A.

[Authority for term: PTI 02-20457, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

11. F025, Fischer Pour and Cool Line

Operations, Property and/or Equipment Description:

Iron pouring and cooling of castings made on the Fischer Mold Line

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 02-20457)	Emissions of particulate matter (PM)/particulate matter less than 10 microns in diameter (PM10) shall not exceed 5.10 lbs/hr. Organic compounds (OC) emissions shall not exceed 1.40 lbs/hr. Carbon monoxide (CO) emissions shall not exceed 29.90 lbs/hr. Visible emissions of fugitive dust shall not exceed 5% opacity, as a 6-minute average.
b.	OAC rule 3745-31-05(D) (PTI 02-20457)	Emissions of PM/PM10 shall not exceed 4.85 tpy based upon a rolling, 12-month period. OC emissions shall not exceed 1.33 tpy based upon a rolling, 12-month period. CO emissions shall not exceed 28.41 tpy based upon a rolling, 12-month period. Emissions of total hazardous air pollutants (HAPs) shall not exceed 1.21 tpy based upon a rolling, 12-month period.
c.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not

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

(2) Additional Terms and Conditions

a. The hourly emission limitations are based on this emissions unit's potential to emit. Therefore, no recordkeeping/reporting requirements are necessary to determine compliance with these limits.

c) Operational Restrictions

(1) The production of ductile iron through in-mold inoculation shall not be performed in this emissions unit.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(A)(1)]

(2) The maximum annual iron production for this emissions unit shall not exceed 19,000 tpy, based upon a rolling, 12-month summation.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

a. the metal production rate for each month; and

b. the rolling, 12-month summation of the metal production rates.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

(2) The permittee shall perform weekly 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 eliminate the visible emissions.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

(3) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #02-20457, issued on June 2, 2005: d)(2). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that include an identification of each month during which the rolling, 12-month iron production rate exceeded the operational restriction of 19,000 tons of iron, and the actual rolling 12-month production rate.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

(2) Quarterly deviation (excursion) reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

(3) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to 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 six-month period.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

(4) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #02-20457, issued on June 2, 2005: e)(3). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Emissions of PM/PM10 shall not exceed 5.10 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined using an emission factor of 0.45 lb per ton of iron poured (from emissions testing performed at this facility on January 18, 1996, for emissions unit P036) and the maximum hourly production rate of 10 TPH.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

OC emissions shall not exceed 1.40 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined using an emission factor of 0.14 lb/ton from FIRE version 6.25 SCC 3-04-003-20 and the maximum hourly production rate of 10 TPH.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

CO emissions shall not exceed 29.90 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined using an emission factor of 2.99 lbs/ton from testing of a similar source at GM's Saginaw MI foundry and the maximum hourly production rate of 10 TPH.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

Emissions of PM/PM10 shall not exceed 4.85 tpy based upon a rolling, 12-month period.

OC emissions shall not exceed 1.33 tpy based upon a rolling, 12-month period.

CO emissions shall not exceed 28.41 tpy based upon a rolling, 12-month period.

Applicable Compliance Method:

The annual emission limitations were established by multiplying the maximum annual iron production rate of 19,000 tons by the respective emission factors referenced in f)(1)a. through f)(1)c. and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with this annual iron production rate, compliance with the emission limitations will be assumed. Compliance with the annual production rate shall be demonstrated by the monitoring and recordkeeping in d)(1).

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

Emissions of HAPs shall not exceed 1.21 tpy based upon a rolling, 12-month period.

Applicable Compliance Method:

The annual emission limitation was established by multiplying the maximum annual iron production rate of 19,000 tons by the emission factors below, summing the total, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with this annual iron production rate, compliance with the emission limitation will be assumed. Compliance with the annual production rate shall be demonstrated by the monitoring and recordkeeping in d)(1).

Emission Factors from "Foundry Process Emission Factors: Baseline Emissions from Automotive Foundries in Mexico," McClellan Air Force Base, California, January, 1999.

Acetaldehyde = 4.72E-03 lb/ton

Acetophenone = 7.90E-04 lb/ton

Benzene = 4.88E-02 lb/ton

Cumene = 2.05E-04 lb/ton

Dibenzofurans = 5.39E-05 lb/ton

Ethylbenzene = 2.48E-03 lb/ton

Formaldehyde = 2.93E-03 lb/ton

Xylenes = 1.02E-02 lb/ton

Naphthalene = 4.14E-03 lb/ton

Nitrobenzene = 2.01E-05 lb/ton

o-Cresol = 1.52E-03 lb/ton

o-Xylenes = 5.20E-03 lb/ton

Phenol = 9.10E-03 lb/ton

Propanol = 5.68E-05 lb/ton

Styrene = 9.09E-04 lb/ton

Toluene = 2.59E-02 lb/ton

Antimony = 6.21E-05 lb/ton

Arsenic = 1.14E-05 lb/ton

Cadmium = 5.25E-05 lb/ton

Chromium = 3.79E-04 lb/ton

Cobalt = 5.30E-03 lb/ton

Lead = 4.80E-04 lb/ton

Manganese = 3.16E-03 lb/ton

Nickel = 4.32E-04 lb/ton

Selenium = 2.46E-05 lb/ton

Total HAPs = 0.127 lb/ton

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined using Method 9 of 40 CFR Part 60, Appendix A.

[Authority for term: PTI 02-20457, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

12. P002, Twelve 30" Snag Grinders

Operations, Property and/or Equipment Description:

Twelve 30" snag grinders used to grind iron 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 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 3745-17-11(B)	The requirements established pursuant to OAC rule 3745-17-11(B) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F020, P026 and P040. See b)(2)a and b)(2)b.
b.	OAC rule 3745-17-07(A)	The requirements specified in OAC rule 3745-17-07(A) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F020 and P040.
c.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
d.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
e.	OAC rule 3745-31-05(A)(3) (PTI 02-0103)	The requirements established pursuant to OAC rule 3745-31-05(A)(3) for this emissions unit are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F020, P026 and P040.

(2) Additional Terms and Conditions

a. This emissions unit is operationally united with F020 (sandwich inoculation process for inliner), P012 (Pangborn South Tumblast machine), P013 (South Wheelabrator shotblast machine), P026 (North Wheelabrator shotblast machine) and P040 (Pangborn North tumble blast machine); and all these emissions units are controlled by a common baghouse.

b. PE emissions from all twelve 30" snag grinders shall be vented to the baghouse serving F020, P026 and P040.

c) Operational Restrictions

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

[Authority for term: PTI 02-0103 and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: PTI 02-0103 and OAC rule 3745-77-07(C)(1)]

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

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

e) Reporting Requirements

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

The quarterly deviation 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)]

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

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

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation:

Particulate emissions from the baghouse serving emissions units F020, P026 and P040 shall not exceed 0.010 gr/dscf and 4.29 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated by the emissions testing and procedures specified in f)(2).

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

Visible particulate emissions from the baghouse serving F020 and P040 shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

[Authority for term: OAC rule 3745-15-04(A) 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 a time frame beginning July 1, 2012 and ending December 31, 2012.

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limits for particulate emissions and to determine the visible particulate emissions.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A.

d. The test(s) shall be conducted while this emissions unit and emissions units F020, P012, P013, P026 and P040 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA Northeast District Office.

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).

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.

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).

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

13. P012, South Pangborn Tumblast Machine

Operations, Property and/or Equipment Description:

Tumblast machine used to remove sand from the 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 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 3745-17-07(A)	The requirements specified in OAC rule 3745-17-07(A) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F020 and P040.
b.	OAC rule 3745-17-11(B)	The requirements established pursuant to OAC rule 3745-17-11(B) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F020, P026 and P040. See b)(2)a and b)(2)b.
c.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
d.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.

(2) Additional Terms and Conditions

a. This emissions unit is operationally united with F020 (sandwich inoculation process for inliner), P002 (twelve snag grinders), P013 (South Wheelabrator shotblast machine), P026 (North Wheelabrator shotblast machine) and P040 (Pangborn North tumble blast machine); and all these emissions units are controlled by a common baghouse.

b. Particulate emissions from the tumblast machine shall be vented to the baghouse serving emissions units P026 and P040.

c) Operational Restrictions

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

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

d) Monitoring and/or Recordkeeping Requirements

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

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

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

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

e) Reporting Requirements

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

The quarterly deviation 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)]

(2) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible

particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation:

Particulate emissions from the baghouse serving emissions units F020, P026 and P040 shall not exceed 0.010 gr/dscf and 4.29 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated by the emissions testing and procedures specified in f)(2).

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

Visible particulate emissions from the baghouse serving F020 and P040 shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

[Authority for term: OAC rule 3745-15-04(A) 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 a time frame beginning July 1, 2012 and ending December 31, 2012.

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limits for particulate emissions and to determine the visible particulate emissions.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A

d. The test(s) shall be conducted while this emissions unit and emissions units F020, P002, P013, P026 and P040 are operating at or near their maximum

capacities, unless otherwise specified or approved by the Ohio EPA Northeast District Office.

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).

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.

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).

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

14. P013, South Wheelabrator

Operations, Property and/or Equipment Description:

Shot blast machine used to remove sand from 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 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 3745-17-07(A)	The requirements specified in OAC rule 3745-17-07(A) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F020 and P040.
b.	OAC rule 3745-17-11(B)	The requirements established pursuant to OAC rule 3745-17-11(B) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F020, P026 and P040. See b)(2)a and b)(2)b.
c.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
d.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.

(2) Additional Terms and Conditions

a. This emissions unit is operationally united with F020 (sandwich inoculation process for inliner), P002 (twelve snag grinders), P012 (Pangborn South tumblast machine), P026 (North Wheelabrator shotblast machine) and P040 (Pangborn North tumble blast machine); and all these emissions units are controlled by a common baghouse.

b. PE from the shot blast machine shall be vented to the baghouse serving F020, P026 and P040.

c) Operational Restrictions

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

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

d) Monitoring and/or Recordkeeping Requirements

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

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

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

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

e) Reporting Requirements

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

[Authority for term: 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 baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions from the baghouse serving emissions units F020 and P040 shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

Particulate emissions from the baghouse serving emissions units F020, P026 and P040 shall not exceed 0.010 gr/dscf and 4.29 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated by the emissions testing and procedures specified in section f)(2).

[Authority for term: OAC rule 3745-15-04(A) 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 a time frame beginning July 1, 2012 and ending December 31, 2012.

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate emissions and to determine the visible particulate emissions.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A.

d. The test(s) shall be conducted while this emissions unit and emissions units F020, P002, P012, P026 and P040 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA Northeast District Office.

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).

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.

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).

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

15. P021, Tabor Cut-off Saw

Operations, Property and/or Equipment Description:

Saw (#34279) used to remove gates and risers from the casting.

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 3745-17-07(A)	The requirements specified in OAC rule 3745-17-07(A) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F021, P039 and P902.
b.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
c.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
d.	OAC rule 3745-31-05(A)(3) (PTI 02-3070)	The requirements established pursuant to OAC rule 3745-31-05(A)(3) for this emissions unit are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F021, P039 and P902.
e.	OAC rule 3745-17-11(B)	The requirements established pursuant to OAC rule 3745-17-11(B) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F021, P039 and P902.

(2) Additional Terms and Conditions

a. This emissions unit is operationally united with F021 (sandwich inoculation process), P039 (Fischer Pushup/Punchout) and P902 (Back floor mold sand

handling system); and all these emissions units are controlled by a common baghouse.

c) Operational Restrictions

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

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

d) Monitoring and/or Recordkeeping Requirements

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

a. [Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

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

e) Reporting Requirements

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

The quarterly deviation 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)]

(2) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible

particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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

f) Testing Requirements

(1) Compliance with the emission limitation(s) in section b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation:

Particulate emissions from the baghouse serving emissions units F021, P039 and P902 shall not exceed 0.010 gr/dscf and 6.0 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated by the emissions testing and procedures specified in f)(2).

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

Visible particulate emissions from the baghouse serving emissions units F021, P039 and P902 shall not exceed 5% opacity as a 6-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

[Authority for term: OAC rule 3745-15-04(A) 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 a time frame beginning July 1, 2012 and ending December 31, 2012.

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limits for particulate emissions and to determine the visible particulate emissions.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 of 40 CFR Part 60, Appendix A. Method 9 readings shall be performed during each test run.

d. The test(s) shall be conducted while the emissions unit and emissions units F021, P039 and P902 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA Northeast District Office.

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).

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.

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).

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

16. P025, Scrap preheater

Operations, Property and/or Equipment Description:

Gas fired heater used to dry the scrap before it enters the melt furnaces-10 million BTU/hr

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 3745-17-11(A)	See b)(2)a.
b.	OAC rule 3745-17-07(A)	In accordance with paragraph (A)(3)(h) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(A) shall not apply to this emissions unit.
c.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
d.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.

(2) Additional Terms and Conditions

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

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

17. P026, North Wheelabrator

Operations, Property and/or Equipment Description:

Shot blast machine used to remove sand from 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 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 3745-17-11(B)	The requirements established pursuant to OAC rule 3745-17-11(B) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3). [See b)(2)a.]
b.	OAC rule 3745-17-07(A)	The requirements specified in OAC rule 3745-17-07(A) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F020 and P040.
c.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
d.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
e.	OAC rule 3745-31-05(A)(3) (PTI 02-1952)	Particulate emissions (PE) from the baghouse shall not exceed 0.010 gr/dscf of exhaust gases, 0.5 lb/hr and 2.2 tpy. Fugitive particulate emissions shall not exceed 3.1 tpy. Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

(2) Additional Terms and Conditions

a. This emissions unit is operationally united with F020 (sandwich inoculation for inliner), P002 (twelve snag grinders), P012 (Pangborn South tumblast machine), P013 (South Wheelabrator shotblast machine), P040 (Pangborn North tumble blast machine), and all these emissions units are controlled by a common baghouse.

b. PE from this shot blast machine shall be vented to the baghouse serving F020, P026 and P040.

c) Operational Restrictions

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

[Authority for term: PTI 02-1952 and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and recordkeeping requirements are as stringent as or more stringent than the monitoring and recordkeeping requirements contained in permit-to-install 02-11952, issued on May 28, 1998: d)(2), d)(3) and d)(4). The monitoring and recordkeeping requirements contained in the above-referenced permit-to-install are subsumed into the monitoring and recordkeeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and recordkeeping requirements in the permit-to-install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)]

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

[Authority for term: PTI 02-1952 and OAC rule 3745-77-07(C)(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 serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

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

(3) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive 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 minimize or eliminate the visible emissions.

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

e) Reporting Requirements

(1) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in permit-to-install 02-11952, issued on May 28, 1998: e)(2), e)(3) and e)(4). The reporting requirements contained in the above-referenced permit-to-install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the permit-to-install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)]

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

The quarterly deviation 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)]

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

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

(4) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from this emissions unit, and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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

f) Testing Requirements

(1) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in permit-to-install 02-11952, issued on May 28, 1998: f)(2) and f)(3). The testing requirements contained in the above-referenced permit-to-install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the permit-to-install.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)]

(2) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions from the baghouse serving F020 and P040 shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

PE from the baghouse shall not exceed 0.010 gr/dscf of exhaust gases and 0.5 lb/hr.

Applicable Compliance Method:

Compliance shall be demonstrated by the emissions testing and procedures specified in f)(3).

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

PE from the baghouse shall not exceed 2.2 tpy.

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the short-term allowable particulate emission limitation (0.5 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)]

d. Emission Limitation:

Fugitive PE shall not exceed 3.1 tpy.

Applicable Compliance Method:

Compliance with this limit shall be based on the following equation:

E = Ti x 7 lbs PE/ton iron x (1-0.98) x 1tn/2000 lbs

where:

E = tons PE per year;

Ti = tons of iron processed per year; and

0.98 = the assumed overall control efficiency of the baghouse.

The emission factor of 7 lbs PE/ton iron was provided by the NEDO.

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

(3) 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 a time frame beginning July 1, 2012 and ending December 31, 2012.

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate emissions and to determine the visible particulate emissions.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A.

d. The test(s) shall be conducted while this emissions unit and emissions units F020, P002, P012, P013 and P040 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA Northeast District Office.

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).

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.

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).

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

18. P027, Simpson Muller

Operations, Property and/or Equipment Description:

Green sand muller which makes mold sand for the Osborn Inliner molding system

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 3745-17-11(B)	Particulate emissions (PE) shall not exceed 10.71 pounds per hour. See b)(2)a and b)(2)b.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
d.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
e.	40 CFR Part 64, Compliance Assurance Monitoring (CAM)	See sections c)(1), d)(1) through d)(3) and e)(1) through e)(3).

(2) Additional Terms and Conditions

a. The allowable PE rate is from Figure II and is based upon the uncontrolled mass rate of emissions (74.5 lbs/hr) as reported for the emissions test conducted on November 7, 2007.

b. PE from the muller shall be vented to a baghouse.

c) Operational Restrictions

(1) The pressure drop across the bag house shall be maintained within the range of 2 to 6 inches of water while the emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(A)(1) and 40 CFR Part 64]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

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

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(3) The permittee shall inspect the baghouse monthly and record the following information:

a. the date and time of the inspection;

b. any portion of the cleaning system, conveying system or hoppers that was not operating properly; and

c. any corrective action(s) taken.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

e) Reporting Requirements

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

The quarterly deviation 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 40 CFR Part 64]

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

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(3) The permittee shall submit quarterly reports identifying all months during which a baghouse inspection was not performed.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

PE shall not exceed 10.71 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated through emission testing and procedures specified in f)(2).

[Authority for term: OAC rule 3745-15-04(A) 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 a time frame beginning January 1, 2013 and ending June 30, 2013.

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate emissions and to determine the visible particulate emissions.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate: Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A.

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.

A particulate emissions test also shall be conducted at the inlet of the control device to determine the uncontrolled mass rate of emissions for the emissions unit, for purposes of applying Figure II of OAC rule 3745-17-11. For this testing, Methods 1 through 5 of 40 CFR Part 60, Appendix A shall be employed.

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).

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.

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).

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

19. P029, Holding Furnace #6

Operations, Property and/or Equipment Description:

20 ton graphite rod "holding furnace"

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 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
b.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
c.	OAC rule 3745-31-05(A)(3) (PTI 02-9649)	Fugitive particulate emissions (PE) shall not exceed 4.26 pounds per hour. Visible fugitive PE shall not exceed 20% opacity, as a 3-minute average.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) This furnace shall not be used as a melting furnace. Prior to modifying this furnace in order to melt scrap, the permittee shall apply for and obtain a permit-to-install.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform weekly 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.

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

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

Fugitive PE shall not exceed 4.26 pounds per hour.

Applicable Compliance Method:

To determine the actual emission rate for fugitive particulates, the following equation may be used:

E = maximum iron throughput (in tons per hour) X 0.056 (lb/ton)

where:

E = PE (lbs/hr).

The emission factor (0.056 lb PE/ton iron) is specified in US EPA reference document AP-42, Compilation of Emission Factors, Section 12.5, Table 12.5-1 (1/95).

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

g) Miscellaneous Requirements

(1) None.

20. P030, Laempe LL-5

Operations, Property and/or Equipment Description:

Resin based core making operation controlled with an acid scrubber.

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 02-19387)	Particulate emissions (PE) from all stacks associated with this emissions unit shall not exceed 0.01 lb/hr and 0.02 tpy. Fugitive PE from this emissions unit shall not exceed 0.77 tpy. Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 0.96 lb/hr and 4.19 tpy. Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average. Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.
b.	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).
c.	OAC rule 3745-17-07(A)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		apply to this emissions unit.
e.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
f.	OAC rule 3745-21-07(G)(2)	See b)(2)a.

(2) Additional Terms and Conditions

a. This emissions unit is exempt from this rule as no photochemically reactive liquid organic materials are employed.

Note: The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

c) Operational Restrictions

(1) The pH of the scrubbing liquor shall be maintained between 0.0 and 4.5.

[Authority for term: PTI 02-19387 and OAC rule 3745-77-07(C)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly operate and maintain equipment to continuously monitor the pH of the scrubber liquor while the emissions unit is in operation. The pH monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

a. the pH of the scrubber liquor; and

b. a log or record of operating time for the capture (collection) system, control device, monitoring equipment and the associated emissions unit.

[Authority for term: PTI 02-19387 and OAC rule 3745-77-07(C)(1)]

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

Authority for term: PTI 02-19387 and OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit quarterly pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirement specified above.

[Authority for term: PTI 02-19387 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 scrubber serving this emissions unit, the bin vent serving this emissions unit, and for any visible fugitive particulate emissions from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

[Authority for term: PTI 02-19387 and OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation:

PE from all stacks associated with this emissions unit shall not exceed 0.01 lb/hr and 0.02 tpy.

Applicable Compliance Method:

Compliance with the hourly and annual PE limitations shall be determined using an emission factor of 0.72 lb/ton of sand processed from Table 11.12-2 of the document entitled AP-42 "Compilation of Air Pollutant Emission Factors," Fifth Edition, dated 10/01.

[Authority for term: PTI 02-19387 and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

Fugitive PE from this emissions unit shall not exceed 0.77 tpy.

Applicable Compliance Method:

Compliance with the annual fugitive PE limitation shall be determined using an emission factor of 0.35 lb/ton from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980.

[Authority for term: PTI 02-19387 and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 0.96 lb/hr and 4.19 tpy.

Applicable Compliance Method:

The hourly and annual VOC emission limitations are based upon the potential to emit for this emissions unit and are based on the following emission factors and information:

Scrubber capture efficiency = 90% (catalyst gas only);

Scrubber control efficiency = 98% (catalyst gas only);

Overall removal efficiency = 88.2% (catalyst gas only);

Binder = 0.72 lb/ton (based on manufacturer supplied data);

Catalyst = 1.56 lbs/ton (based on man. supplied data and max. usage); and

Core release = 1.01 lbs/ton (based on man. supplied data and max. usage).

[Authority for term: PTI 02-19387 and OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR Part 60, Appendix A.

[Authority for term: PTI 02-19387, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction and average opacity calculation shall be based upon sets of twelve consecutive visible particulate emission observations recorded at fifteen-second intervals.

[Authority for term: PTI 02-19387, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

21. P031, South Laempe L-20

Operations, Property and/or Equipment Description:

Sand cores are made using an L-20 size Laempe core machine.

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 02-20073)	Fugitive particulate emission (PE) from this emissions unit shall not exceed 0.70 tpy. Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 1.72 lbs/hr and 4.28 tpy. Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.
b.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
c.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
d.	OAC rule 3745-21-07(G)(2)	exempt See b)(2)a.

(2) Additional Terms and Conditions

a. The permittee shall not employ any photochemically reactive liquid organic materials in this emissions unit.

Note: The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

c) Operational Restrictions

(1) The pH of the scrubbing liquor shall be maintained between 0.0 and 4.5.

[Authority for term: PTI 02-20073 and OAC rule 3745-77-07(A)(1)]

(2) In order to avoid exceeding the above annual emission limitations, annual production from this emissions unit, in terms of sand processed, shall not exceed 4,000 tpy, as a rolling, 12-month summation.

[Authority for term: PTI 02-20073 and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly operate and maintain equipment to continuously monitor the pH of the scrubber liquor while the emissions unit is in operation and the DMIPA catalyst system is being used. The pH monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day that this emissions unit operates:

a. the pH of the scrubber liquor; and

b. a log or record of operating time for the capture (collection) system, control device, monitoring equipment and the associated emissions unit.

[Authority for term: PTI 02-20073 and OAC rule 3745-77-07(C)(1)]

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

[Authority for term: PTI 02-20073 and OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain monthly records of the following information:

a. the total production rate, in terms of sand processed, in tons per month; and

b. the rolling, 12-month summations of the monthly total production rate, in terms of sand processed.

[Authority for term: PTI 02-20073 and OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit quarterly pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirement specified above.

[Authority for term: PTI 02-20073 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 scrubber serving this emissions unit and for any visible fugitive particulate emissions from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

[Authority for term: PTI 02-20073 and OAC rule 3745-77-07(C)(1)]

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

[Authority for term: PTI 02-20073 and OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Fugitive PE from this emissions unit shall not exceed 0.70 tpy.

Applicable Compliance Method:

Compliance with the annual fugitive PE limitation shall be determined using an emission factor of 0.35 lb/ton from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980.

[Authority for term: PTI 02-20073 and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 1.72 lbs/hr and 4.28 tpy.

Applicable Compliance Method:

The hourly VOC emission limitation is based upon the potential to emit for this emissions unit. The annual VOC emission limitation is based on the production restriction of 4,000 tons of sand per year. Therefore, as long as compliance with the operational and production restriction is maintained, compliance with the annual emission limitation is assumed. Compliance with the production restriction is based upon the recordkeeping in d)(3).

[Authority for term: PTI 02-20073 and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction and average opacity calculation shall be based upon sets of twelve consecutive visible particulate emission observations recorded at fifteen-second intervals.

[Authority for term: PTI 02-20073, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

22. P032, Laempe L-40

Operations, Property and/or Equipment Description:

Sand cores are made using an L-40 size Laempe core machine.

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 02-21983)	Particulate emissions (PE) from all stacks associated with this emissions unit shall not exceed 0.02 lb/hr and 0.03 tpy. Fugitive PE from this emissions unit shall not exceed 1.40 tpy. Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 3.21 lbs/hr and 8.57 tpy. Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average. Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.
b.	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).
c.	OAC rule 3745-17-07(A)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		apply to this emissions unit.
e.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
f.	OAC rule 3745-21-07(G)	Exempt See b)(2)a.

(2) Additional Terms and Conditions

a. The permittee shall not employ any photochemically reactive liquid organic materials in this emissions unit.

Note: The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

c) Operational Restrictions

(1) The pH of the scrubbing liquor shall be maintained between 0.0 and 4.5.

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(A)(1)]

(2) In order to avoid exceeding the above annual emission limitations, annual production from this emissions unit, in terms of sand processed, shall not exceed 8,000 tpy, as a rolling, 12-month summation.

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly operate and maintain equipment to continuously monitor the pH of the scrubber liquor while the emissions unit is in operation and the DMIPA catalyst system is being used. The pH monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

(2) The permittee shall collect and record the following information each day that this emissions unit operates:

a. the pH of the scrubber liquor; and

b. a log or record of operating time for the capture (collection) system, control device, monitoring equipment and the associated emissions unit.

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(C)(1)]

(3) 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 scrubber serving this emissions unit, the bin vent serving this emissions unit, and for any

visible fugitive particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain monthly records of the following information:

a. the total production rate, in terms of sand processed, in tons per month; and

b. the rolling, 12-month summations of the monthly total production rate, in terms of sand processed.

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit quarterly pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirement specified above.

[Authority for term: PTI 02-21983 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 scrubber serving this emissions unit, the bin vent serving this emissions unit, and for any visible fugitive particulate emissions from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(C)(1)]

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

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PE from all stacks associated with this emissions unit shall not exceed 0.02 lb/hr and 0.03 tpy.

Applicable Compliance Method:

Compliance with the hourly and annual PE limitations shall be determined using an emission factor of 0.72 lb/ton of sand processed from Table 11.12-2 of the document entitled AP-42 "Compilation of Air Pollutant Emission Factors," Fifth Edition, dated 10/01.

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

Fugitive PE from this emissions unit shall not exceed 1.40 tpy.

Applicable Compliance Method:

Compliance with the annual fugitive PE limitation shall be determined using an emission factor of 0.35 lb/ton from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980.

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 3.21 lbs/hr and 8.57 tpy.

Applicable Compliance Method:

The hourly VOC emission limitation is based upon the potential to emit for this emissions unit. The annual VOC emission limitation is based on the production restriction of 8,000 tons of sand per year. Therefore, as long as compliance with the production restriction is maintained, compliance with the annual emission limitation is assumed. Compliance with the production restriction is based upon the recordkeeping in d)(3).

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR Part 60, Appendix A.

[Authority for term: PTI 02-21983, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR Part 60, Appendix A, except that the data reduction and average opacity calculation shall be based upon sets of twelve consecutive visible particulate emission observations recorded at fifteen-second intervals.

[Authority for term: PTI 02-21983, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

23. P033, East Laempe L-20

Operations, Property and/or Equipment Description:

Sand cores are made using an L-20 size Laempe core machine (dual binder system).

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) g)(1)

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 02-20394)	Particulate emissions (PE) from all stacks associated with this emissions unit shall not exceed 0.02 lb/hr and 0.02 tpy. Fugitive PE from this emissions unit shall not exceed 0.70 tpy. Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 24.42 lbs/hr and 24.42 tpy. Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average. Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.
b.	OAC rule 3745-31-05(D) (PTI 02-20394)	VOC emissions shall not exceed 24.42 tons per rolling, 12-month period. Hazardous air pollutants (HAP) emissions shall not exceed 5.60 tons per rolling, 12-month period. Emissions of particulate matter less than 10 microns in diameter (PM-10) shall not exceed 0.72 tpy per rolling, 12-month period.
c.	OAC rule 3745-17-11(B)	The emission limitation required by this applicable rule is less stringent than the

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-07(A)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
f.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
g.	OAC rule 3745-21-07(G)(2)	See b)(2)a.

(2) Additional Terms and Conditions

a. This emissions unit is exempt from this rule while using the methyl formate catalyst system or the DMIPA catalyst system as no photochemically reactive liquid organic materials are employed.

Note: The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

c) Operational Restrictions

(1) The pH of the scrubbing liquor shall be maintained between 0.0 and 4.5.

[Authority for term: PTI 02-20394 and OAC rule 3745-77-07(A)(1)]

(2) Annual production from this emissions unit, in terms of sand processed, shall not exceed 4,000 tpy, based on a rolling, 12-month summation of the monthly production rates.

[Authority for term: PTI 02-20394 and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly operate and maintain equipment to continuously monitor the pH of the scrubber liquor while the emissions unit is in operation and the DMIPA catalyst system is being used. The pH monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day that the DMIPA catalyst system is used:

a. the pH of the scrubber liquor; and

a log or record of operating time for the capture (collection) system, control device, monitoring equipment and the associated emissions unit.

[Authority for term: PTI 02-20394 and OAC rule 3745-77-07(C)(1)]

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

[Authority for term: PTI 02-20394 and OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain monthly records of the following information:

a. the total production rate, in terms of sand processed, in tons per month; and

b. the rolling, 12-month summations of the monthly total production rate, in terms of sand processed.

[Authority for term: PTI 02-20394 and OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit quarterly pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirement specified above.

[Authority for term: PTI 02-20394 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 scrubber serving this emissions unit, the bin vent serving this emissions unit, and for any visible fugitive particulate emissions from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

[Authority for term: PTI 02-20394 and OAC rule 3745-77-07(C)(1)]

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

[Authority for term: PTI 02-20394 and OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PE from all stacks associated with this emissions unit shall not exceed 0.02 lb/hr and 0.02 tpy.

Applicable Compliance Method:

Compliance with the hourly and annual PE limitations shall be determined using an emission factor of 0.72 lb/ton of sand processed from Table 11.12-2 of the document entitled AP-42 "Compilation of Air Pollutant Emission Factors," Fifth Edition, dated 10/01.

[Authority for term: PTI 02-20394 and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

Fugitive PE from this emissions unit shall not exceed 0.70 tpy.

Applicable Compliance Method:

Compliance with the annual fugitive PE limitation shall be determined using an emission factor of 0.35 lb/ton from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980.

[Authority for term: PTI 02-20394 and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 24.42 lbs/hr and 24.42 tpy.

Applicable Compliance Method:

The hourly VOC emission limitation is based upon the potential to emit for this emissions unit. The annual VOC emission limitation is based on the production restriction of 4,000 tons of sand per year. Therefore, as long as compliance with the production restriction is maintained, compliance with the annual emission limitation is assumed. Compliance with the production restriction is based upon the recordkeeping in d)(3).

[Authority for term: PTI 02-20394 and OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.

[Authority for term: PTI 02-20394, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction and average opacity calculation shall be based upon sets of twelve consecutive visible particulate emission observations recorded at fifteen-second intervals.

[Authority for term: PTI 02-20394, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

f. Emission Limitations:

VOC emissions shall not exceed 24.42 tons per rolling, 12-month period.

HAP emissions shall not exceed 5.60 tons per rolling, 12-month period.

Emissions PM-10 shall not exceed 0.72 tpy per rolling, 12-month period.

Applicable Compliance Method:

The annual emission limitations were established using the maximum annual production rate of 4,000 tons and the following emission factors:

12.21 lbs of VOC/ton of sand (supplied by manufacturer's of catalyst, core release and binder)

2.8 lbs of HAPs (methanol)/ton of sand (supplied by manufacturer of catalyst)

0.35 lb/ton of PM10, from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980 (core making)

0.72 lb/ton of PM10, from Table 11.12-2 of the document entitled AP-42 "Compilation of Air Pollutant Emission Factors," Fifth Edition, dated 10/01. (sand transfer used in conjunction with a 99% control efficiency for fabric filter.

Therefore, provided compliance is shown with this annual production restriction, compliance with the emission limitations will be assumed. Compliance with the annual production restriction shall be demonstrated by the monitoring and recordkeeping in d)(3).

[Authority for term: PTI 02-20394 and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was performed and the predicted 1-hour maximum ground-level concentration was less than 80 percent of the MAGLC. Therefore, the air toxic demonstration is not part of this final permit. 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 air toxic to increase may require the permittee to apply for and obtain a new permit to install.

24. P034, West Laempe L-20

Operations, Property and/or Equipment Description:

Sand cores are made using an L-20 size Laempe core machine.

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) g)(1)

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 02-21983)	Particulate emissions (PE) from all stacks associated with this emissions unit shall not exceed 0.01 lb/hr and 0.02 tpy. Fugitive PE from this emissions unit shall not exceed 0.70 tpy. Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 1.72 lbs/hr and 4.28 tpy. Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average. Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.
b.	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).
c.	OAC rule 3745-17-07(A)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		apply to this emissions unit.
e.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
f.	OAC rule 3745-21-07(G)(2)	Exempt See b)(2)a.

(2) Additional Terms and Conditions

a. The permittee shall not employ any photochemically reactive liquid organic materials in this emissions unit.

Note: The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

c) Operational Restrictions

(1) The pH of the scrubbing liquor shall be maintained between 0.0 and 4.5.

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(A)(1)]

(2) In order to avoid exceeding the above annual emission limitations, annual production from this emissions unit, in terms of sand processed, shall not exceed 4,000 tpy, as a rolling, 12-month summation.

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly operate and maintain equipment to continuously monitor the pH of the scrubber liquor while the emissions unit is in operation. The pH monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

a. the pH of the scrubber liquor; and

b. a log or record of operating time for the capture (collection) system, control device, monitoring equipment and the associated emissions unit.

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(C)(1)]

(2) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the scrubber serving this emissions unit, the bin vent serving this emissions unit, and for any visible fugitive particulate emissions from this emissions unit. The presence or absence

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain monthly records of the following information:

a. the total production rate, in terms of sand processed, in tons per month; and

b. the rolling, 12-month summations of the monthly total production rate, in terms of sand processed.

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit quarterly pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirement specified above.

[Authority for term: PTI 02-21983 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 scrubber serving this emissions unit, the bin vent serving this emissions unit, and for any visible fugitive particulate emissions from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(C)(1)]

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

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PE from all stacks associated with this emissions unit shall not exceed 0.01 lb/hr and 0.02 tpy.

Applicable Compliance Method:

Compliance with the hourly PE limitation shall be determined using an emission factor of 0.72 lb/ton of sand processed from Table 11.12-2 of the document entitled AP-42 "Compilation of Air Pollutant Emission Factors," Fifth Edition, dated 10/01 along with a maximum hourly production rate of 0.80 tons/hr and a control efficiency of 99 percent.

Compliance with the annual emission limit shall be determined using the hourly emission limit determined above, multiplied by 8,760 hrs/yr and dividing by 2,000 lbs/ton.

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

Fugitive PE from this emissions unit shall not exceed 0.70 tpy.

Applicable Compliance Method:

Compliance with the annual fugitive PE limitation shall be determined using an emission factor of 0.35 lb/ton of sand from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980.

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 1.72 lb/hr and 4.28 tpy.

Applicable Compliance Method:

The hourly VOC emission limitation is based upon the potential to emit for this emissions unit. The annual VOC emission limitation is based on the production restriction of 4,000 tons of sand per year. Therefore, as long as compliance with the production restriction is maintained, compliance with the annual emission limitation is assumed. Compliance with the production restriction is based upon the recordkeeping in d)(3).

[Authority for term: PTI 02-21983 and OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR Part 60, Appendix A.

[Authority for term: PTI 02-21983, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR Part 60, Appendix A, except that the data reduction and average opacity calculation shall be based upon sets of twelve consecutive visible particulate emission observations recorded at fifteen-second intervals.

[Authority for term: PTI 02-21983, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the increase in emissions due to the modification(s) to the emissions unit was less than 1 tpy of each toxic pollutant that has a listed Threshold Limit Value (TLV), as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices").

25. P036, Inliner Pour/cool line

Operations, Property and/or Equipment Description:

Pouring and cooling area for the molds made on the Osborn Inliner automatic molding machine

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 3745-18-06(E)(2)	Emissions of sulfur dioxide (SO2) shall not exceed 782 pounds per hour. See b)(2)c.
b.	OAC rule 3745-17-07(A)	In accordance with paragraph (A)(3)(h) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(A) shall not apply to this emissions unit.
c.	OAC rule 3745-17-11(B)	See b)(2)a.
d.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
e.	OAC rule 3745-17-07(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
f.	OAC rule 3745-31-05(A)(3) (PTI 02-9754)	Fugitive and stack particulate emissions (PE), combined, shall not exceed 9.9 pounds per hour. Visible fugitive and/or stack particulate emissions shall not exceed 20% opacity, as a 6-minute average. Fugitive and stack volatile organic compound (VOC) emissions, combined, shall not exceed 2.8 pounds per hour. See b)(2)b. The requirements of OAC rule 3745-31-

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		05(A)(3) also include compliance with the requirements of OAC rule 3745-18-06(E)(2).

(2) Additional Terms and Conditions

a. In accordance with OAC 3745-17-11(A)(2)(a)(ii), "Figure II" of OAC rule 3745-17-11 shall not apply to this emissions unit because the uncontrolled particulate emissions are less than 10 pounds per hour. Based on the results of emissions testing conducted on January 18, 1996 and a maximum iron pour rate of 20 tons per hour, the maximum uncontrolled particulate matter emission rate is 9 pounds per hour. In accordance with OAC 3745-17-11(A)(2)(b)(ii), "Table I" of OAC rule 3745-17-11 shall not apply to this emissions unit because it is located in Wayne County.

b. The pouring and cooling emissions are captured in hooding and vented outside the building through six (6) stacks. The collection efficiency of the capture hoods shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at all points of capture. The permittee shall maintain all hoods and enclosures in good operating condition. Additional capture hooding or enclosures shall be installed if required by the Ohio EPA.

c. No recordkeeping and monitoring is required for the SO2 emission limit because the maximum uncontrolled emission rate of SO2 cannot exceed the limit.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) At the end of each month, the permittee shall record the following information for each day to determine the emission rates of PE, VOC and SO2:

a. the total metal production, in tons;

b. the hours this emissions unit was in operation;

c. the amount of iron poured, in tons;

d. the hourly PE rate, in lbs PE/hour, calculated as [(c) X 0.45 lb PE/ton iron poured] / (b);

e. the hourly SO2 emission rate, in lbs SO2/hour, calculated as [(c) x 0.02 lb/ton iron poured]/(b); and

f. the hourly VOC emission rate, in lbs VOC/hour, calculated as [(c) x 0.14 lbs/ton iron poured]/(b).

0.45 = emission factor in lbs PE per ton of iron poured (from emissions testing performed at this facility on January 18, 1996, for emissions unit P036

0.02 = emission factor in lb SO2/ton iron poured is specified in US EPA reference document Factor Information Retrieval Data System, Version 6.25 SCC 30400320

0.14 = emission factor in lbs VOC per ton iron poured (from SCC emission factor 30400320)

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

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

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

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

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

e. any corrective actions taken to 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)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly VOC emissions exceeded 2.8 pounds per hour, and the actual average hourly VOC emissions for each such day.

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

(2) The quarterly deviation 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)]

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

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

(4) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive 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 Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Emissions of SO2 shall not exceed 782 pounds per hour.

Applicable Compliance Method:

Compliance shall be determined in accordance with the following methods:

Compliance shall be demonstrated by multiplying the maximum production rate (tons iron/hour) by 0.02 lb SO2/ton iron.

The emission factor (0.02 lb SO2/ton iron) is specified in US EPA reference document Factor Information Retrieval Data System, Version 6.25, SCC 30400320.

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

b. Emission Limitation:

Visible fugitive and/or stack particulate emissions shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

Fugitive and stack VOC emissions, combined, shall not exceed 2.8 pounds per hour.

Applicable Compliance Method:

Compliance shall be determined based upon the recordkeeping specified in d)(1).

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

E = daily iron production rate (in tons per day) X 0.14 lb VOC/ton iron

where:

E = VOC emission rate (lbs/day); and

0.14 lb VOC/ton iron is an emission factor specified in US EPA reference document Factor Information Retrieval Data System, Version 6.25, SCC 30400320.

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

d. Emission Limitation:

Fugitive and stack PE, combined, shall not exceed 9.9 pounds per hour.

Applicable Compliance Method:

Compliance shall be determined in accordance with the following methods:

Compliance may be demonstrated by multiplying the maximum production rate (tons iron/hour) by 0.45 lb PE/ton iron.

The emission factor (0.45 lb PE/ton iron) was determined during a December 12, 1995, emissions test of 5 of the 6 stacks at the facility.

Compliance with the PE limitation of 9.9 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10), if required.

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

g) Miscellaneous Requirements

(1) None.

26. P039, Fischer Pushup/Punchout

Operations, Property and/or Equipment Description:

Removing sand and raw castings from mold by first a pushup action followed by a punchout action into shakeout

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 02-20457)	Emissions of particulate matter (PM)/particulate matter less than 10 microns in diameter (PM10) from the baghouse stack serving this emissions unit and emissions units F021, P021 and P902 shall not exceed 0.010 gr/dscf and 6.0 lbs/hr. Fugitive PM emissions shall not exceed 0.30 tpy. Fugitive PM10 emissions shall not exceed 0.21 tpy. Organic compounds (OC) emissions shall not exceed 12.00 lbs/hr. Carbon monoxide (CO) emissions shall not exceed 10.00 lbs/hr. Visible emissions of fugitive dust shall not exceed 5% opacity, as a 6-minute average. Visible PE from the baghouse stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average.
b.	OAC rule 3745-31-05(D) (PTI 02-20457)	Emissions of PM/PM10 from the baghouse stack serving this emissions unit and emissions units F021, P021 and P902 shall

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		not exceed 26.28 tpy based upon a rolling, 12-month period. Fugitive PM10 emissions shall not exceed 0.21 tpy based upon a rolling, 12-month period. OC emissions shall not exceed 11.40 tpy based upon a rolling, 12-month period. CO emissions shall not exceed 9.50 tpy based upon a rolling, 12-month period.
c.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
d.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
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(A)(3).
f.	OAC rule 3745-17-07(A)	The visible particulate emission limitation required by this applicable 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 hourly emission limitations are based on this emissions unit's potential to emit. Therefore, no recordkeeping/reporting requirements are necessary to determine compliance with these limits.

c) Operational Restrictions

(1) The maximum annual iron production for this emissions unit shall not exceed 19,000 tpy, based upon a rolling, 12-month summation of the production rates.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(A)(1)]

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

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

a. the metal production rate for each month; and

b. the rolling, 12-month summation of the metal production rates.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

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

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

(4) The permittee shall perform weekly 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 eliminate the visible emissions.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that include an identification of each month during which the rolling, 12-month iron production rate exceeded the operational restriction of 19,000 tons of iron, and the actual rolling, 12-month production rate.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

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

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

(3) Quarterly deviation (excursion) reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

(4) 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 eliminate the visible 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 six-month period.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to 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 six-month period.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Emissions of PM)/PM10 from the baghouse stack serving this emissions unit and emissions units F021, P021 and P902 shall not exceed 0.010 gr/dscf and 6.0 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly and grain loading emission limits shall be determined by stack testing as specified in f)(2).

The hourly limit of 6.0 lbs/hr is based on a grain loading limit of 0.010 gr/dscf and the gas flow rate for the baghouse of 70,000 scfm.

[Authority for term: PTI 02-20457, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

Fugitive PM emissions shall not exceed 0.30 tpy.

Fugitive PM10 emissions shall not exceed 0.21 tpy.

Applicable Compliance Method:

Compliance with the annual fugitive emission limitations shall be determined using the following equation:

A = EF x P x (1 - CE) x / 2,000 lbs/ton

where:

A = annual fugitive emission rate (tpy);

EF = emission factor of 3.20 lbs of PM/ton from FIRE ver 6.25 SCC 3-04-003-31;

= emission factor of 2.24 lbs of PM10/ton from FIRE ver 6.25 SCC 3-04-003-31;

P = maximum annual process weight rate (19,000 tpy); and

CE = fractional capture efficiency of baghouse = 0.99.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

OC emissions shall not exceed 12.00 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined using an emission factor of 1.20 lbs/ton from FIRE version 6.25 SCC 3-04-003-31 and the maximum hourly production rate of 10 TPH.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

CO emissions shall not exceed 10.00 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined using an emission factor of 1.00 lb/ton from Waupaca foundry RBLC determination in Indiana and the maximum hourly production rate of 10 TPH.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

Emissions of PM/PM10 from the baghouse stack serving this emissions unit and emissions units F021, P021 and P902 shall not exceed 26.28 tpy based upon a rolling, 12-month period.

Applicable Compliance Method:

The annual emission limitation was established using the allowable grain loading limit for the baghouse stack (0.010 gr/dscf), the baghouse flow rate 70,000 scfm and potential operating hours of 8,760 hrs/yr. Therefore, compliance with the annual limit is assumed, as long as compliance with the grain loading limit is maintained.

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

Fugitive PM10 emissions shall not exceed 0.21 tpy based upon a rolling, 12-month period.

OC emissions shall not exceed 11.40 tpy based upon a rolling, 12-month period.

CO emissions shall not exceed 9.50 tpy based upon a rolling, 12-month period.

Applicable Compliance Method:

The annual emission limitations were established by multiplying the maximum annual iron production rate of 19,000 tons by the respective emission factors referenced in f)(1)a. through f)(1)c. and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with this annual iron production rate, compliance with the emission limitations will be assumed. Compliance with the annual production rate shall be demonstrated by the monitoring and recordkeeping in section d)(1).

[Authority for term: PTI 02-20457 and OAC rule 3745-77-07(C)(1)]

g. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined using Method 9 of 40 CFR Part 60, Appendix A.

[Authority for term: PTI 02-20457, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

h. Emission Limitation:

Visible PE from the baghouse stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined using Method 9 of 40 CFR Part 60, Appendix A.

[Authority for term: PTI 02-20457, OAC rule 3745-15-04(A) 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 a time frame beginning July 1, 2012 and ending December 31, 2012.

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate emissions and to determine the visible particulate emissions from the baghouse serving this emissions unit.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A.

d. The test(s) shall be conducted while this emissions unit and emissions units F021, P021 and P902 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA Northeast District Office.

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).

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.

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).

[Authority for term: PTI 02-20457, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

27. P040, Pangborn North Tumble Blast

Operations, Property and/or Equipment Description:

Pangborn North tumble blast machine used to clean sand from iron castings with steel shot.

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 02-22041)	Particulate emissions (PE) shall not exceed 0.010 grain per dry standard cubic foot of total exhaust gases, 0.64 lb/hr and 2.80 tpy. Visible PE from the stack of the baghouse serving this emissions unit shall not exceed 5% opacity, as a 6-minute average. Emissions of fugitive dust shall not exceed 1.04 tpy. Visible emissions of fugitive dust shall not exceed 5% opacity, as a 3-minute average.
b.	OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)	See b)(2)a.
c.	OAC rule 3745-17-07(B)	See b)(2)b.
d.	OAC rule 3745-17-08(B)	See b)(2)c.

(2) Additional Terms and Conditions

a. The emission limitations required by these applicable rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

b. In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.

c. In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.

d. This emissions unit is operationally united with F020 (sandwich inoculation process for inliner), P002 (twelve snag grinders), P012 (Pangborn South tumble blast machine), P013 (South Wheelabrator shotblast machine) and P026 (North Wheelabrator) and all these emissions units are controlled by a common baghouse.

c) Operational Restrictions

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

[Authority for term: PTI 02-22041 and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: PTI 02-22041 and OAC rule 3745-77-07(C)(1)]

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit 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 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.

[Authority for term: PTI 02-22041 and OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

[Authority for term: PTI 02-22041 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 fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to 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 six-month period.

[Authority for term: PTI 02-22041 and OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PE shall not exceed 0.010 grain per dry standard cubic foot of total exhaust gases, 0.64 lb/hr and 2.80 tpy.

Applicable Compliance Method:

Compliance with the grain loading limit and hourly limit above shall be determined through stack testing as specified in f)(2).

The annual emission limitation was developed by multiplying the short-term allowable particulate emission limitation (0.64 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: PTI 02-22041, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

Emissions of fugitive dust shall not exceed 1.04 tpy.

Applicable Compliance Method:

The annual emission limitation above was created using the following equation:

E = PWR x EF x (1 - CE) x (1 - BCE) x (8,760 hrs/yr) / (2,000 lbs/ton)

where:

E = hourly fugitive dust emission rate (lbs/hr);

PWR = maximum hourly process weight rate (10 tons/hr);

EF = emission factor of 7.0 lbs/ton of material processed per 11/97 stack test;

CE = fractional capture efficiency (0.99); and

BCE = fractional building capture efficiency (0.66, based on AP-42, Section 12.10 "Gray Iron Foundries" Background Document).

[Authority for term: PTI 02-22041 and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

Visible PE from the stack of the baghouse serving this emissions unit shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: PTI 02-22041, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 5% opacity, as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

[Authority for term: PTI 02-22041, OAC rule 3745-15-04(A) 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 a time frame beginning July 1, 2012 and ending December 31, 2012.

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limits for particulate emissions and to determine the visible particulate emissions.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A.

d. The test(s) shall be conducted while this emissions unit and P002, P012, P013 and P026 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA Northeast District Office

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).

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.

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).

[Authority for term: PTI 02-22041, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

28. P901, Inliner Shakeout

Operations, Property and/or Equipment Description:

Shakeout for the Osborn Inliner automatic molding machine

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 3745-17-11(B)(1)	Particulate emissions (PE) from the baghouse and the stack serving the cooling conveyor, combined, shall not exceed 59.5 pounds per hour. See b)(2)a and b)(2)b.
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
d.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
e.	40 CFR, Part 64, Compliance Assurance Monitoring (CAM)	See sections c)(1), d)(1) through d)(3) and e)(1) through e)(3).

(2) Additional Terms and Conditions

a. This emissions unit is operationally united with P903 (Inliner shakeout sand recycle system) and is controlled by a common baghouse. The allowable emission rate from the baghouse for these units was determined by using Figure II and an uncontrolled emission rate of 734 pounds per hour of particulate emissions, as determined in an October 8, 2003, emissions test.

b. PE from the punchout, scalping conveyor, shakeout deck and cooling conveyor shall be vented to the baghouse.

c) Operational Restrictions

(1) The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water column at all times while the emissions unit is in operation.

(2) [Authority for term: OAC rule 3745-77-07(A)(1) and 40 CFR, Part 64]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(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 stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

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

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(3) The permittee shall inspect the baghouse monthly and record the following information:

a. the date and time of the inspection;

b. any portion of the cleaning system, conveying system or hoppers that was not operating properly; and

c. any corrective action(s) taken.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

e) Reporting Requirements

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

The quarterly deviation 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 40 CFR, Part 64]

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

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(3) The permittee shall submit quarterly reports identifying all months during which a baghouse inspection was not performed.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) 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.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

PE from the baghouse and the stack serving the cooling conveyor, combined, shall not exceed 59.5 pounds per hour.

Applicable Compliance Method:

Compliance with the PE limitation shall be determined in accordance with OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-15-04(A) 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 by within a time frame beginning January 1, 2013 and ending June 30, 2013.

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate emissions and to determine the visible particulate emissions.

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

for PE: Methods 1 through 5 of 40 CFR Part 60, Appendix A; and

for opacity: Method 9 of 40 CFR Part 60, Appendix A (opacity readings of the stacks during each test run).

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.

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).

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.

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).

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

29. P902, Back Floor Mold Sand Handling System

Operations, Property and/or Equipment Description:

Moves sand from P017 Shakeout through screening, cooling, preparation and mixing operations at East End Muller (previously P023) out to Hunter and 722 Mold 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 3745-17-11(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).
b.	OAC rule 3745-17-07(A)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
d.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
e.	OAC rule 3745-31-05(A)(3) (PTI 02-2565)	Particulate emissions (PE) from the baghouse stack shall not exceed 0.010 gr/dscf of exhaust gases, 3.49 pounds per hour and 6.99 tpy. Fugitive PE shall not exceed 6.48 tpy. Fugitive emissions of particulate matter less than 10 microns in diameter (PM10) shall not exceed 0.97 tpy. Visible particulate emissions from the

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		baghouse stack shall not exceed 5% opacity, as a 6-minute average. See b)(2)a, b)(2)b and b)(2)c.
f.	40 CFR, Part 64, Compliance Assurance Monitoring (CAM)	See sections c)(1), d)(1), d)(2), d)(6), e)(1), e)(3) and e)(5).

(2) Additional Terms and Conditions

a. All sand processing equipment shall be fully enclosed and shall be exhausted to the baghouse. This shall include the rotary screen, the sand cooler and cyclone and the return sand storage silo.

b. All material handling equipment, except the final belt conveyor, shall be covered and shall be exhausted to the baghouse. This shall include the belt conveyor from the existing shakeout, the transfer point at the cross magnetic belt conveyor, the belt conveyors to the sand cooler and the vibrating feed conveyor. The final belt conveyor to the existing sand muller shall be enclosed at the head and tail end and shall be exhausted to the baghouse.

c. The collection efficiency of the air pollution capture hoods shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at all points of capture. The visible emissions of fugitive dust from the building that encloses this emissions unit shall not exceed 5% opacity, as a 6-minute average.

c) Operational Restrictions

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

[Authority for term: PTI 02-2565, OAC rule 3745-77-07(A)(1) and 40 CFR Part 64]

(2) The maximum annual production rate for this emissions unit shall not exceed 360,000 tons of sand, based upon a rolling, 12-month summation.

[Authority for term: PTI 02-2565 and OAC rule 3745-77-07(A)(1)]

(3) The maximum annual operating hours for this emissions unit shall not exceed 4,000, based upon a rolling, 12-month summation.

[Authority for term: PTI 02-2565 and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: PTI 02-2565, OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

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

(4) The permittee shall maintain monthly records of the following information:

a. the sand throughput rate, in tons;

b. the rolling, 12-month summation of the sand throughput rates;

c. the number of hours of operation; and

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

[Authority for term: PTI 02-2565 and OAC rule 3745-77-07(C)(1)]

(5) To determine compliance with the annual fugitive PE and PM-10 limitations, the permittee shall record the amount of sand handled by this emissions unit, in tons, on a monthly basis.

[Authority for term: PTI 02-2565 and OAC rule 3745-77-07(C)(1)]

(6) The permittee shall inspect the baghouse monthly and record the following information:

a. the date and time of the inspection;

b. any portion of the cleaning system, conveying system or hoppers that was not operating properly; and

c. any corrective action(s) taken.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

e) Reporting Requirements

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

The quarterly deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: PTI 02-2565, OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify each month the rolling, 12-month production rate and/or operating hours limitation(s) was (were) exceeded.

[Authority for term: PTI 02-2565 and OAC rule 3745-77-07(C)(1)]

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

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(4) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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

(5) The permittee shall submit quarterly reports identifying all months during which a baghouse inspection was not performed.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) and b)(2) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 5% opacity, as a 6-minute average.

The visible emissions of fugitive dust from the building that encloses this emissions unit shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

[Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

PE from the baghouse stack shall not exceed 0.010 gr/dscf of exhaust gases and 3.49 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by the emission testing and procedures specified in f)(2).

The hourly limit of 3.49 pounds per hour is based on a grain loading limit of 0.01 gr/dscf and the gas flow rate from this emissions unit of 40,750 SCFM.

[Authority for term: PTI 02-2565, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

PE from the baghouse stack shall not exceed 6.99 tpy.

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the short-term allowable particulate emission limitation (3.49 lbs/hr) by the restricted annual hours of operation (4,000 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission

limitation and the restricted annual hours of operation, compliance shall also be shown with the annual emission limitation.

[Authority for term: PTI 02-2565 and OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

Fugitive PE shall not exceed 6.48 tpy.

Applicable Compliance Method:

Compliance with the fugitive PE emission limit shall be determined in accordance with the following equation:

E = Ts x 3.6 (lbs PM/ton sand) x (1-0.99) x 1/2000 (ton/pounds)

where:

E = tons PM emitted per year;

Ts = actual amount of sand processed per year (tons);

3.6 lbs PE/ton sand is the emission factor from AP-42 Table 12.10-7 (1/95 update), for sand handling; and

0.99 (99%) is the assumed collection efficiency of the air pollution capture hoods.

[Authority for term: PTI 02-2565 and OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

Fugitive emissions of PM10 shall not exceed 0.97 tpy.

Applicable Compliance Method:

Compliance with the fugitive PM-10 emission limit shall be determined in accordance with the following equation

E = Ts x 0.54 (lbs PM-10/ton sand) x (1-0.99) x 1/2000 (ton/pounds)

where:

E = tons PM-10 emitted per year;

Ts = actual amount of sand processed per year (tons);

0.54 lb PM-10/ton sand is an emission factor submitted in the application for PTI 02-11040 and is based on U.S. EPA document "PM-10 Emission Factor Listing Developed by Technology Transfer, 3-04-003-50"; and

0.99 (99%) is the assumed collection efficiency of the air pollution capture hoods.

[Authority for term: PTI 02-2565 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 a time frame beginning July 1, 2012 and ending December 31, 2012.

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate emissions and to determine the visible particulate emissions.

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

for PE - Methods 1 through 5 of 40 CFR Part 60, Appendix A; and

for opacity - Method 9 of 40 CFR Part 60, Appendix A (opacity readings for each sampling run).

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.

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).

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.

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).

[Authority for term: PTI 02-2565, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

30. P904, Foxall Auto Grind System

Operations, Property and/or Equipment Description:

Foxall automatic finish grinding system.

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 02-22679)	Particulate emissions (PE) from the baghouse stack and any fugitive egress points shall be no more than 0.42 tpy. See b)(2)a.
b.	OAC rule 3745-17-11(B)	None [See b)(2)b.]
	OAC rule 3745-17-07(A)	None [See b)(2)c.]
c.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
d.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.

(2) Additional Terms and Conditions

a. Permit-to-install 02-22679 for this air contaminant source takes into account the use of a baghouse system, whenever this air contaminant source is in operation, with a minimum control efficiency of 99%, by weight for PE, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

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

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

c) Operational Restrictions

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

(2) [Authority for term: PTI 02-22679 and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

(2) [Authority for term: PTI 02-22679 and OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

(2) The quarterly deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: PTI 02-22679 and OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

(2) Emission Limitation:

PE from the baghouse stack and any fugitive egress points shall be no more than 0.42 tpy.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual allowable PE limitation above using the following equation:

PE = [[EF x P x (Ca) x (1 - Co)] + [EF x P x (1 - Ca) x (1 - Bca)]] x 8,760 hrs/yr / 2,000 lbs/ton

where:

PE = maximum annual emission rate;

EF = emission factor (1.6 lbs/ton of iron from "An Inventory of Iron Foundry Emissions," by Bernard S. Gutow, Modern Casting, January 1972);

P = maximum hourly process weight rate, 4.5 tons per hour;

Ca = estimated fractional capture efficiency, 0.99;

Co = manufacturer's rated fractional control efficiency, 0.99; and

Bca = fractional building capture efficiency, 0.66 (this value is used for cleaning and finishing emissions only as derived from AP-42, Table 17.10-7.

[Authority for term: PTI 02-22679 and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

31. P905, Foxall Auto Grind System

Operations, Property and/or Equipment Description:

Foxall automatic finish grinding system.

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(E)	Particulate emissions (PE) from the baghouse stack and any fugitive egress points shall be no more than 0.42 tpy. See b)(2)a.
b.	OAC rule 3745-17-11(B)	None [See b)(2)b.]
c.	OAC rule 3745-17-07(A)	None [See b)(2)c.]
d.	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).
e.	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 P0104072 takes into account the use of a baghouse system, whenever this air contaminant source is in operation, with a minimum control efficiency of 99%, by weight for PE, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

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

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

c) Operational Restrictions

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

[Authority for term: PTI P0104072 and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: PTI P0104072 and OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

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

The quarterly deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: PTI P0104072 and OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitation in b)(1) of these terms and conditions shall be determined in accordance with the following method:

a. Emission Limitation:

PE from the baghouse stack and any fugitive egress points shall be no more than 0.42 tpy.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual allowable PE limitation above using the following equation:

PE = [[EF x P x (Ca) x (1 - Co)] + [EF x P x (1 - Ca) x (1 - Bca)]] x 8,760 hrs/yr / 2,000 lbs/ton

where:

PE = maximum annual emission rate;

EF = emission factor (1.6 lbs/ton of iron from "An Inventory of Iron Foundry Emissions," by Bernard S. Gutow, Modern Casting, January 1972);

P = maximum hourly process weight rate, 4.5 tons per hour;

Ca = estimated fractional capture efficiency, 0.99;

Co = manufacturer's rated fractional control efficiency, 0.99; and

Bca = fractional building capture efficiency, 0.66 (this value is used for cleaning and finishing emissions only as derived from AP-42, Table 17.10-7.

[Authority for term: PTI P0104072 and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

32. R001, Core Wash Operation

Operations, Property and/or Equipment Description:

Isopropyl alcohol based core wash operation.

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 02-21651)	Emissions of volatile organic compounds (VOC) shall not exceed 25.16 lbs/hr. Particulate emissions (PE)/particulate emissions less than 10 microns in diameter (PM-10) shall not exceed 7.53 lbs/hr. Visible emissions of fugitive dust from this emissions unit shall not exceed 0% opacity, as a 3-minute average. The requirements of this rule shall also include compliance with OAC rule 3745-31-05(D). See b)(2)a.
b.	OAC rule 3745-31-05(D) (PTI 02-21651)	Emissions of VOC shall not exceed 25.19 tpy based upon a rolling, 12-month summation. PE/PM10 shall not exceed 7.54 tpy based upon a rolling, 12-month summation.
c.	OAC rule 3745-21-07(G)(2)	See b)(2)c.
d.	OAC rule 3745-17-07(B) OAC rule 3745-17-08(B)	The requirements in these rules are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The permittee shall employ best available control measures consisting of normal operation and maintenance to ensure compliance with the opacity limitation specified above. If at any time compliance with the opacity limitation is not maintained, the permittee shall employ additional control measures.

b. The hourly emission limitations specified above represent the potential to emit for this emissions unit. Therefore, no recordkeeping or reporting requirements are specified to demonstrate ongoing compliance with these limits.

c. This emissions unit is exempt from the requirements of this rule as long as no photochemically reactive materials are employed.

Note: The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

c) Operational Restrictions

(1) Annual material throughput for this emissions unit, in terms of core wash and core wash thinner employed, shall not exceed 4,550 gallons per year and 3,550 gallons per year, respectively. This material throughput restriction shall be based on a rolling, 12-month summation of the monthly production rates.

[Authority for term: PTI 02-21651 and OAC rule 3745-77-07(A)(1)]

(2) The permittee shall employ core wash with no greater than 5.80 lbs of VOC/gallon and no more than 4.20 lbs of solids/gallon.

[Authority for term: PTI 02-21651 and OAC rule 3745-77-07(A)(1)]

(3) The permittee shall employ core wash thinner with no greater than 6.68 lbs of VOC/gallon.

[Authority for term: PTI 02-21651 and OAC rule 3745-77-07(A)(1)]

(4) The permittee shall employ no photochemically reactive materials in this emissions unit, as photochemically reactive material is defined in OAC rule 3745-21-01(C)(5).

[Authority for term: PTI 02-21651 and OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain the following monthly records for this emissions unit:

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

b. an indication of whether or not each material is a photochemically reactive material as defined in OAC rule 3745-21-01(C)(5);

c. the VOC content in lbs/gallon of each material employed;

d. the solids content in lbs/gallon of each material employed;

e. the number of gallons of each material employed in this emissions unit; and

f. the rolling, 12-month summations of the monthly total material throughput rate, in terms of core wash employed and core wash thinner employed.

[Authority for term: PTI 02-21651 and OAC rule 3745-77-07(C)(1)]

(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 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: PTI 02-21651 and OAC rule 3745-77-07(C)(1)]

(3) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #02-21651, issued on August 14, 2007: d)(2). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month material throughput restrictions.

[Authority for term: PTI 02-21651 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 fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to 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 six-month period.

[Authority for term: PTI 02-21651 and OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit deviation (excursion) reports that identify all periods of time when photochemically reactive materials were used in this emissions unit.

[Authority for term: PTI 02-21651 and OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Emissions of VOC shall not exceed 25.16 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly VOC limit shall be determined using the equation below. The recordkeeping requirements in d)(1) shall be used to determine compliance with the maximum VOC content restrictions.

E = [(HCW) x (VCW)] + [(HCWT) x (VCWT)]

where:

E = hourly emission rate;

HCW = maximum hourly core wash usage rate (2.99 gals/hr);

VCW = maximum core wash VOC content (5.80 lbs VOC/gal);

HCWT = maximum hourly core wash thinner usage rate (1.17 gals/hr); and

VCWT = maximum core wash thinner VOC content (6.68 lbs VOC/gal).

[Authority for term: PTI 02-21651 and OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

PE/PM10 shall not exceed 7.53 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly PE/PM-10 limit shall be determined using the equation below. The recordkeeping requirements in d)(1) shall be used to determine compliance with the maximum solids content restriction.

E = (HCW) x (SCW) x (1 - TE)

where:

E = hourly emission rate;

HCW = maximum hourly core wash usage rate (2.99 gals/hr);

SCW = maximum solids content of core wash (4.20 lbs/gal); and

TE = fractional transfer efficiency if applied using spray technique (0.40).

[Authority for term: PTI 02-21651 and OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed 0% opacity, as a 3-minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined using Method 9 of 40 CFR Part 60, Appendix A, with the modification described in OAC rule 3745-17-03(B)(3)(a).

[Authority for term: PTI 02-21651, OAC rule 3745-15-04(A) and OAC rule 3745-77-07(C)(1)]

d. Emission Limitations:

Emissions of VOC shall not exceed 25.19 tpy based upon a rolling, 12-month summation.

PE/PM10 shall not exceed 7.54 tpy based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the annual emission limitations shall be determined by the recordkeeping requirements specified in d)(1). As long as compliance with the material throughput restrictions is maintained, compliance with the annual limits will be assumed.

[Authority for term: PTI 02-21651 and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

33. Emissions Unit Group - Exempt Units: F002, F003, F004, F005, F006, F022, P011, P017 and P903

EU ID	Operations, Property and/or Equipment Description
F002	Scrap Reclaimer (vibrating mechanical separator used to remove metal from sand)
F003	Furnace #1 (coreless induction furnace 3750 KW)
F004	Furnace #2 (coreless induction furnace 3750 KW)
F005	Furnace #3 (coreless induction furnace 3750 KW)
F006	Roadways and Parking Areas
F022	Core Sand Receiving and Transfer (loading and unloading of sand for core making)
P011	Holding Furnaces #4 & #5 (2 furnaces – each 5 ton capacity used for "holding iron")
P017	East End Shakeout (shakeout system serving the 722, Hunter and Fischer mold/pour/cool lines
P903	Inliner Shakeout Sand Recycle System (sand system used to return sand from shakeout to recycle silos, previously identified as Z043)

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

(2) Additional Terms and Conditions

(a) Because the baghouse for P017 was installed in 1997, this emissions unit continues to be considered a fugitive dust source. OAC rules 3745-17-07(A) and 3745-17-11 are not applicable.

(b) P903 is operationally united with emissions unit P901 (Inliner shakeout) and is controlled by a common baghouse. The controls for emissions unit P903 were not employed until 1994 and there were no stack emissions prior to that time.

Therefore, this emissions unit continues to be considered a fugitive dust source and OAC rules 3745-17-07(A) and 3745-17-11 are not applicable.

Particulate emissions from the belt transfer 7 to 8, belt transfer 8 to 8A, belt transfer 8A to rotary screen and the rotary screen shall continue to be vented to an air pollution control device.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.