



State of Ohio Environmental Protection Agency

Street Address:

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

09/11/02

**CERTIFIED MAIL**

**RE: Draft Title V Chapter 3745-77 permit**

02-47-08-0229

Republic Technologies International  
Patrick L Monnot  
2633 Eighth Street, N.E.  
Canton, OH 44704-2311

Dear Patrick L Monnot:

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

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

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

Very truly yours,

Michael W. Ahern, Supervisor  
Field Operations and Permit Section  
Division of Air Pollution Control

cc: USEPA (electronically submitted)  
File, DAPC PMU  
Northeast District Office



State of Ohio Environmental Protection Agency

DRAFT TITLE V PERMIT

Issue Date: 09/11/02

Effective Date: To be entered upon final issuance

Expiration Date: To be entered upon final issuance

This document constitutes issuance of a Title V permit for Facility ID: 02-47-08-0229 to:
Republic Technologies International
1807 E. 28th Street
Lorain, OH 44055

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

Table with 3 columns: Emissions Unit ID (Company ID), Emissions Unit Activity Description, and Emissions Unit Activity Description. Rows include units like B006 (No. 6 BF Boiler), F021 (No. 6 Ladle Dryer / Preheater), P069 (Coke Screening & Transfer), etc.

P092 (No. 4 Ladle Preheater ) Preheat steel ladles	produce molten hot metal	P909 (BOP "N" Vessel) Refining molten pig iron by oxidizing impurities
P093 (No. 5 Ladle Preheater ) Preheat steel ladles	P907 (No. 4 Blast Furnace) Combine raw matls, iron ore pellets, limestone/dolomite, coke, scrap, etc. to produce molten hot metal	P910 (BOP Raw Material Handling) BOP Flux storage & handling
P905 (No. 3 Blast Furnace) Combine raw matls, iron ore pellets, limestone/dolomite, coke, scrap, coal, etc. to	P908 (BOP "L" Vessel) Refining molten pig iron by oxidizing impurities	

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

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

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

**OHIO ENVIRONMENTAL PROTECTION AGENCY**

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Christopher Jones  
Director

## PART I - GENERAL TERMS AND CONDITIONS

### A. *State and Federally Enforceable Section*

#### 1. **Monitoring and Related Record Keeping and Reporting Requirements**

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

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

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

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

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

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

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

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

ii. **For emission limitations, operational restrictions, and control device operating parameter limitations:**

(a) Written reports of (i) any deviations from federally enforceable 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 taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Part III of this Title V permit, the written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters. 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. These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations. See B.6 below if no deviations occurred during the quarter.

*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i), (ii) and (iii))*

- (b) 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 deviation reporting requirements for this Title V permit, written reports that identify each malfunction that occurred during each calendar quarter shall be submitted, at a minimum, quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters.

In identifying each deviation caused by a malfunction, the permittee shall specify the applicable requirement 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. Also, if a deviation caused by a malfunction is identified in a written report submitted pursuant to paragraph (a) above, a separate report is not required for that malfunction pursuant to this paragraph. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing, at a minimum, on a quarterly basis.

Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation, operational restriction, and control device operating parameter limitation shall be reported in the same manner as described above for malfunctions. These written reports for malfunctions (and scheduled maintenance projects, if appropriate) shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations.

*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(iii))*

iii. **For monitoring, record keeping, and reporting requirements:**

Written reports that identify any deviations from the federally enforceable monitoring, record keeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year, for the previous six calendar months. 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. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, record keeping, and

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

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

- iv. Each written report shall be signed by a responsible official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."

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

## **2. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit(s) 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 OAC rule 3745-15-06, 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).

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

## **3. Risk Management Plans**

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

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

## **4. Title IV Provisions**

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

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

## **5. Severability Clause**

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

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

## **6. General Requirements**

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

- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

*(Authority for term: OAC rule 3745-77-07(A)(7))*

#### **7. Fees**

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

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

#### **8. Marketable Permit Programs**

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

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

#### **9. Reasonably Anticipated Operating Scenarios**

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

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

#### **10. Reopening for Cause**

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

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

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

## **11. Federal and State Enforceability**

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

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

## **12. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

- i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
- i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
  - ii. Compliance certifications shall include the following:
    - (a) An identification of each term or condition of this permit that is the basis of the certification.
    - (b) The permittee's current compliance status.
    - (c) Whether compliance was continuous or intermittent.
    - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
    - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
  - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

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

### **13. Permit Shield**

- a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

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

#### **14. Operational Flexibility**

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

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

#### **15. Emergencies**

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

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

#### **16. Off-Permit Changes**

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

- a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.
- b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as

insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

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

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

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

#### **17. Compliance Method Requirements**

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

*(This term is provided for informational purposes only.)*

#### **18. Insignificant Activities**

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

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

#### **19. Permit to Install Requirement**

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

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

#### **20. Air Pollution Nuisance**

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

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

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

### **1. Reporting Requirements Related to Monitoring and Record Keeping Requirements**

The permittee shall submit required reports in the following manner:

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

### **2. Records Retention Requirements**

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

### **3. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee

shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**4. Scheduled Maintenance/Malfunction Reporting**

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

**5. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

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

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

## Part II - Specific Facility Terms and Conditions

### A. State and Federally Enforcable Section

1. The permittee will be subject to the upcoming/proposed National Emission Standards for Hazardous Air Pollutants (NESHAP) for Integrated Iron and Steel, 40 CFR Part 63 Subpart FFFFF. U.S. EPA failed to promulgate this standard by May 15, 2002, the Maximum Achievable Control Technology (MACT) hammer date. In accordance with 40 CFR 63 Subpart B (63.50 through 63.56), the permittee is required to submit an application to revise the permit to include equivalent emission limitations as a result of a case-by-case MACT determination. The application is required to be submitted in two parts: The deadline to submit the Part I application as specified in 63.53 was May 15, 2002.
2. If the final MACT Standard is not promulgated by May 15, 2004, the permittee shall submit the Part II application as specified in 63.53. The Part II application shall be submitted no later than May 15, 2004, and must contain the information in paragraphs (a) through (f) of this section.
  - a. For a new affected source, the anticipated date of startup of operation.
  - b. The hazardous air pollutants emitted by each affected source in the relevant source category and an estimated total uncontrolled and controlled emission rate for hazardous air pollutants from the affected source.
  - c. Any existing Federal, State, or local limitations or requirements applicable to the affected source.
  - d. For each affected emission point or group of affected emission points, an identification of control technology in place.
  - e. Information relevant to establishing the MACT floor, and, at the option of the owner or operator, a recommended MACT floor.
  - f. Any other information reasonably needed by the permitting authority including, at the discretion of the permitting authority, information required pursuant to subpart A of this part.

The Part II application for a MACT determination may, but is not required to, contain the following information:

- a. Recommended emission limitations for the affected source and support information. The owner or operator may recommend a specific design, equipment, work practice, or operational standard, or combination thereof, as an emission limitation.
- b. A description of the control technologies that would be applied to meet the emission limitation including technical information on the design, operation, size, estimated control efficiency and any other information deemed appropriate by the permitting authority, and identification of the affected sources to which the control technologies must be applied.
- c. Relevant parameters to be monitored and frequency of monitoring to demonstrate continuous compliance with the MACT emission limitation over the applicable reporting period.

**A. State and Federally Enforcable Section (continued)**

3. If the NESHAP is promulgated before May 15, 2004, the facility will be subject as an existing major source with a compliance date as specified in the NESHAP. Pursuant to the Subpart, the permittee shall submit the following notifications:
- a. Within 120 days after promulgation of 40 CFR Part 63 Subpart FFFFF, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to the promulgated standards. If the permittee is subject to the final standards, the following information shall also be included in the Initial Notification Report:
    - i. the name and mailing address of the permittee;
    - ii. the physical location of the source if it is different from the mailing address;
    - iii. identification of the relevant MACT standards and the permittee's compliance date;
    - iv. a brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each hazardous air pollutant; and
    - v. a statement of whether or not the permittee is a major source or an area source according to the promulgated MACT.
  - b. Within 60 days following completion of any required compliance demonstration activity specified in the 40 CFR Part 63 Subpart FFFFF, the permittee shall submit a notification of compliance status that contains the following information:
    - i. the methods used to determine compliance;
    - ii. the results of any performance test, opacity or visible emission observations, continuous monitoring systems (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;
    - iii. the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;
    - iv. the type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR Part 63 Subpart FFFFF;
    - v. an analysis demonstrating whether the affected source is a major source or an area source;
    - vi. a description of the air pollution control equipment or method for each emission point, including each control device or method for each hazardous air pollutant and the control efficiency (percent) for each control device or method; and
    - vii. a statement of whether or not the permittee has complied with the requirements of 40 CFR Part 63 Subpart FFFFF.

**B. State Only Enforceable Section**

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

B014 Bar Mill No. 1 package boiler  
B015 Bar Mill No. 2 package boiler  
F014 Scrap preparation and torch burning  
L033 Bar-001 parts and tools cleaning tank  
L034 Bar-002 parts and tools cleaning tank  
L035 Bar-003 parts and tools cleaning tank  
L036 Bar-004 parts and tools cleaning tank  
L037 Bar-005 parts and tools cleaning tank  
L038 Bar-006 parts and tools cleaning tank  
L039 Bar-007 parts and tools cleaning tank  
L040 Bar-008 parts and tools cleaning tank  
L041 Bar-009 parts and tools cleaning tank  
L042 Bar-010 parts and tools cleaning tank  
L043 Bar-011 parts and tools cleaning tank  
L044 Bar-012 parts and tools cleaning tank  
L045 Bar-013 parts and tools cleaning tank  
L046 Bar-014 parts and tools cleaning tank  
L047 Bar-015 parts and tools cleaning tank  
L048 Bar-016 parts and tools cleaning tank  
L049 Bar-017 parts and tools cleaning tank  
L050 Bar-019 parts and tools cleaning tank  
L051 Bar-021 parts and tools cleaning tank  
L052 Bar-022 parts and tools cleaning tank  
L053 BOP-001 parts and tools cleaning tank  
L054 BOP-002 parts and tools cleaning tank  
L055 CAS-001 parts and tools cleaning tank  
L056 CAS-002 parts and tools cleaning tank  
L057 GRI-001 parts and tools cleaning tank  
L058 GRI-002 parts and tools cleaning tank  
L059 MAC-001 parts and tools cleaning tank  
L060 MAC-003 parts and tools cleaning tank  
L061 MAC-004 parts and tools cleaning tank  
L062 MTC-001 parts and tools cleaning tank  
L063 MTC-002 parts and tools cleaning tank  
L064 MTC-003 parts and tools cleaning tank  
L065 MTC-004 parts and tools cleaning tank  
L066 MTC-005 parts and tools cleaning tank  
L067 MTC-006 parts and tools cleaning tank  
L068 MTC-007 parts and tools cleaning tank  
L069 MTC-008 parts and tools cleaning tank  
L070 MTC-009 parts and tools cleaning tank  
L071 MTC-010 parts and tools cleaning tank  
L072 MTC-011 parts and tools cleaning tank

**B. State Only Enforceable Section (continued)**

L073 PRI-001 parts and tools cleaning tank  
L074 PRI-002 parts and tools cleaning tank  
L075 PRI-003 parts and tools cleaning tank  
N001 Motor repair ACE electric burnout oven  
N002 Motor repair ACE electric burnout oven  
P074 No. 3 Blast furnace pulverized coal injection  
P084 Pig casting mold coating/drying  
T006 Main garage 100,000-gallon gas diesel storage tank  
T007 BF boiler house 100,000-gallon #6 fuel oil tank  
T008 BF boiler house 100,000-gallon #6 fuel oil tank  
T013 Blast furnace injectant 300,000-gallon gal #6 fuel oil tank  
T019 No. 3 pumphouse 300-gallon gas diesel storage tank  
T021 No. 3 pumphouse 3,000-gallon gas diesel storage tank  
Z001 Ladle repair station  
Z003 Rolling mill No.1 primary stand  
Z004 Rolling mill No. 3 reducing stand  
Z009 No.1 ladle dryer  
Z010 Rolling mill No. 2 primary stand  
Z011 Rolling mill No. 2 primary stand  
Z012 Rolling mill No. 4 saw  
Z013 Rolling mill No. 5 saw  
Z020 BOP 300-gallon diesel storage tank west of F2 conveyor  
Z021 BOP 300-gallon diesel storage tank east end of ladle service  
Z022 BOP 300-gallon diesel storage tank east end of mold yard  
Z024 Bar mill drott yard 550-gallon gas diesel storage tank  
Z026 Bar mill 10,000-gallon gas gasoline UST  
Z027 21st Street garage 8,000-gallon gas diesel UST  
Z028 Main garage 8,000-gallon diesel UST

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 a Permit to Install for the emissions unit.

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 6 BF Boiler (B006)  
**Activity Description:** Steam Boiler

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
No. 6 blast furnace boiler (166 MMBtu/hr natural gas and blast furnace gas fired boiler)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.
	OAC rule 3745-17-10(B)(1)	See Section A.I.2.a. and b. below.
	OAC rule 3745-18-53(D)(1)	SO <sub>2</sub> : 1.20 lbs per MMBtu of actual heat input

##### 2. Additional Terms and Conditions

- 2.a The maximum particulate emissions from this emissions unit shall be limited to 0.020 lb/MMBtu of actual heat input when firing only natural gas.
- 2.b The maximum particulate emissions from this emissions unit shall be limited to 0.040 lb/MMBtu of actual heat input when firing blast furnace gas.
- 2.c Blast furnace gas does not contain measureable quantities of sulfur compounds according to "Steam", 39th Edition, The Babcock & Wilcock Company, 1978, pages 5-20, and "Air Pollution Engineering Manual", Air & Waste Management Association, 1992, page 650.

Therefore, monitoring and record keeping the sulfur content for the blast furnace gas is not required because the sulfur dioxide emission rate for burning blast furnace gas is always less than the allowable sulfur dioxide emission rate in Section A.I.1 of these terms and conditions.

##### II. Operational Restrictions

1. The permittee shall burn only natural gas and/or blast furnace gas in this emissions unit.

##### III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas or blast furnace gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or blast furnace gas was burned in this emissions unit.
2. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

#### **V. Testing Requirements**

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

**1.a** Emission Limitation:

20% opacity of visible particulate emissions as a 6-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for the No. 6 BF Boiler identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(1) of OAC rule 3745-17-03.

**1.b** Emission Limitation:

0.020 lb of PE per MMBtu of actual heat input (when firing only natural gas)

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 1.9 lb of PE/MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1040 Btu/cf. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 1-5 and the procedures specified in OAC rule 3745-17-03(B)(9) while firing natural gas.

**1.c** Emission Limitation:

0.040 lb of PE per MMBtu of actual heat input (when firing blast furnace gas)

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 0.826 lb of PE/MM scf of blast furnace gas (facility's measurement and calculation) by 75 Btu/cf. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 1-5 and the procedures specified in OAC rule 3745-17-03(B)(9) while firing blast furnace gas.

**V. Testing Requirements (continued)**

**1.d** Emission Limitation:

1.20 lbs of SO<sub>2</sub> per MMBtu

Applicable Compliance Method:

When firing natural gas, compliance with this limitation may be assumed due to the negligible percent sulfur, by weight, in the fuel.

When firing blast furnace gas, compliance may be determined by dividing the emission factor of 2.2 lbs of SO<sub>2</sub>/MM scf of blast furnace gas (facility's emission factor) by 75 Btu/cf.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 6 while firing blast furnace gas.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 7 BF Boiler (B007)  
**Activity Description:** Steam Boiler

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
No. 7 blast furnace boiler (225 MMBtu/hr natural gas and blast furnace gas fired boiler)	OAC rule 3745-31-05 (A)(3) PTI No. 02-5573	NOx: 0.15 lb per MMBtu of actual heat input  The requirements of this rule also include compliance with the requirements of OAC rule 3745-18-53(D)(1), OAC rule 3745-17-10(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 21-08, and OAC rule 3745-23-06.
	OAC rule 3745-18-53(D)(1)	SO2: 1.20 lbs per MMBtu of actual heat input
	OAC rule 3745-17-10(B)(1)	See Section A.I.2.a. and b. below.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.
	OAC rule 3745-21-08	See Section A.I.2.d. below.
	OAC rule 3745-23-06	See Section A.I.2.d. below.

##### 2. Additional Terms and Conditions

- 2.a The maximum particulate emissions from this emissions unit shall be limited to 0.020 lb/MMBtu of actual heat input when firing only natural gas.
- 2.b The maximum particulate emissions from this emissions unit shall be limited to 0.040 lb/MMBtu of actual heat input when firing blast furnace gas.

## **2. Additional Terms and Conditions (continued)**

- 2.c** Blast furnace gas does not contain measureable quantities of sulfur compounds according to "Steam", 39th Edition, The Babcock & Wilcock Company, 1978, pages 5-20, and "Air Pollution Engineering Manual", Air & Waste Management Association, 1992, page 650.

Therefore, monitoring and record keeping the sulfur content for the blast furnace gas is not required because the sulfur dioxide emission rate for burning blast furnace gas is always less than the allowable sulfur dioxide emission rate in Section A.I.1 of these terms and conditions.

- 2.d** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in PTI No. 02-5573.

## **II. Operational Restrictions**

1. The permittee shall burn only natural gas or blast furnace gas in this emissions unit.

## **III. Monitoring and/or Record Keeping Requirements**

1. For each day during which the permittee burns a fuel other than natural gas or blast furnace gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

## **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or blast furnace gas was burned in this emissions unit.
2. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

## **V. Testing Requirements**

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

**1.a** Emission Limitation:

0.15 lb NO<sub>x</sub> per MMBtu of actual heat input

Applicable Compliance Method:

The permittee shall conduct or have conducted emission tests for this emissions unit to demonstrate compliance with the allowable mass emission rate for oxides of nitrogen. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 7 or 7E of 40 CFR Part 60, Appendix A while the No. 7 BF boiler is operating at maximum capacity. The emission tests for No. 7 and No. 8 BF boilers shall be performed on an alternating basis (every other year for each boiler).

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the 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 Northeast District Office's refusal to accept the results of the emission test(s).

## V. Testing Requirements (continued)

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

### 1.b Emission Limitation:

1.20 lbs of SO<sub>2</sub> per MMBtu

Applicable Compliance Method:

When firing natural gas, compliance with this limitation may be assumed due to the negligible percent sulfur, by weight, in the fuel.

When firing blast furnace gas, compliance may be determined by dividing the emission factor of 2.2 lb of SO<sub>2</sub>/MM scf of blast furnace gas (facility's measurement and calculation) by 75 Btu/cf.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 6 while firing blast furnace gas.

### 1.c Emission Limitation:

0.020 lb of PE per MMBtu of actual heat input (when firing only natural gas)

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 1.9 lb of PE/MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1040 Btu/cf. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 1-5 and the procedures specified in OAC rule 3745-17-03(B)(9) while firing natural gas.

### 1.d Emission Limitation:

0.040 lb of PE per MMBtu of actual heat input (when firing blast furnace gas)

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 0.826 lb of PE/MM scf of blast furnace gas (facility's emission factor) by 75 Btu/cf. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 1-5 and the procedures specified in OAC rule 3745-17-03(B)(9) while firing blast furnace gas.

**V. Testing Requirements (continued)**

**1.e** Emission Limitation:

20% opacity of visible particulate emissions as a 6-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for the No. 7 BF Boiler identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(1) of OAC rule 3745-17-03.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 8 BF Boiler (B008)  
**Activity Description:** Steam Boiler

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
No. 8 blast furnace boiler (225 MMBtu/hr natural gas and blast furnace gas fired boiler)	OAC rule 3745-31-05 (A)(3) PTI No. 02-5573	NOx: 0.15 lb per MMBtu of actual heat input
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-18-53(D)(1), OAC rule 3745-17-10(B)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-21-08, and OAC rule 3745-23-06.
	OAC rule 3745-18-53(D)(1)	SO <sub>2</sub> : 1.20 lbs per MMBtu of actual heat input
	OAC rule 3745-17-10(B)(1)	See Section A.I.2.a. and b. below.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.
	OAC rule 3745-21-08	See Section A.I.2.d. below.
	OAC rule 3745-23-06	See Section A.I.2.d. below.

##### 2. Additional Terms and Conditions

- 2.a The maximum particulate emissions from this emissions unit shall be limited to 0.020 lb/MMBtu of actual heat input when firing only natural gas.
- 2.b The maximum particulate emissions from this emissions unit shall be limited to 0.040 lb/MMBtu of actual heat input when firing blast furnace gas.

## **2. Additional Terms and Conditions (continued)**

- 2.c** Blast furnace gas does not contain measureable quantities of sulfur compounds according to "Steam", 39th Edition, The Babcock & Wilcock Company, 1978, pages 5-20, and "Air Pollution Engineering Manual", Air & Waste Management Association, 1992, page 650.

Therefore, monitoring and record keeping the sulfur content for the blast furnace gas is not required because the sulfur dioxide emission rate for burning blast furnace gas is always less than the allowable sulfur dioxide emission rate in Section A.I.1 of these terms and conditions.

- 2.d** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in PTI No. 02-5573.

## **II. Operational Restrictions**

1. The permittee shall burn only natural gas or blast furnace gas in this emissions unit.

## **III. Monitoring and/or Record Keeping Requirements**

1. For each day during which the permittee burns a fuel other than natural gas or blast furnace gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

## **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or blast furnace gas was burned in this emissions unit.
2. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

## **V. Testing Requirements**

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

**1.a** Emission Limitation:

0.15 lb NO<sub>x</sub> per MMBtu of actual heat input

Applicable Compliance Method:

The permittee shall conduct or have conducted emission tests for this emissions unit to demonstrate compliance with the allowable mass emission rate for oxides of nitrogen. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 7 or 7E of 40 CFR Part 60, Appendix A while the No. 8 BF boiler is operating at maximum capacity. The emission tests for No. 7 and No. 8 BF boilers shall be performed on an alternating basis (every other year for each boiler).

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the 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 Northeast District Office's refusal to accept the results of the emission test(s).

## V. Testing Requirements (continued)

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

### 1.b Emission Limitation:

1.20 lbs of SO<sub>2</sub> per MMBtu

Applicable Compliance Method:

When firing natural gas, compliance with this limitation may be assumed due to the negligible percent sulfur, by weight, in the fuel.

When firing blast furnace gas, compliance may be determined by dividing the emission factor of 2.2 lb of SO<sub>2</sub>/MM scf of blast furnace gas (facility's measurement and calculation) by 75 Btu/cf.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 6 while firing blast furnace gas.

### 1.c Emission Limitation:

0.020 lb of PE per MMBtu of actual heat input (when firing only natural gas)

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 1.9 lb of PE/MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1040 Btu/cf. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 1-5 and the procedures specified in OAC rule 3745-17-03(B)(9) while firing natural gas.

### 1.d Emission Limitation:

0.040 lb of PE per MMBtu of actual heat input (when firing blast furnace gas)

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 0.826 lb of PE/MM scf of blast furnace gas (facility's emission factor) by 75 Btu/cf. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 1-5 and the procedures specified in OAC rule 3745-17-03(B)(9) while firing blast furnace gas.

**V. Testing Requirements (continued)**

**1.e** Emission Limitation:

20% opacity of visible particulate emissions as a 6-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for the No. 8 BF Boiler identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(1) of OAC rule 3745-17-03.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 9 BF Boiler (B009)  
**Activity Description:** Steam Boiler

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
No. 9 blast furnace boiler (225 MMBtu/hr natural gas and blast furnace gas fired boiler)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.
	OAC rule 3745-17-10(B)(1)	See Section A.I.2.a. and b. below.
	OAC rule 3745-18-53(D)(1)	SO <sub>2</sub> : 1.20 lbs per MMBtu of actual heat input

##### 2. Additional Terms and Conditions

- The maximum particulate emissions from this emissions unit shall be limited to 0.020 lb/MMBtu of actual heat input when firing only natural gas.
- The maximum particulate emissions from this emissions unit shall be limited to 0.040 lb/MMBtu of actual heat input when firing blast furnace gas.
- Blast furnace gas does not contain measureable quantities of sulfur compounds according to "Steam", 39th Edition, The Babcock & Wilcock Company, 1978, pages 5-20, and "Air Pollution Engineering Manual", Air & Waste Management Association, 1992, page 650.

Therefore, monitoring and record keeping the sulfur content for the blast furnace gas is not required because the sulfur dioxide emission rate for burning blast furnace gas is always less than the allowable sulfur dioxide emission rate in Section A.I.1 of these terms and conditions.

#### II. Operational Restrictions

- The permittee shall burn only natural gas or blast furnace gas in this emissions unit.

#### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas or blast furnace gas, the permittee shall maintain a record of the type and quantity of fuel burned in the emissions unit.

#### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or blast furnace gas was burned in this emissions unit.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:

20% opacity of visible particulate emissions as a 6-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for the No. 9 BF Boiler identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(1) of OAC rule 3745-17-03.

- 1.b Emission Limitation:

0.020 lb of PE per MMBtu of actual heat input (when firing only natural gas)

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 1.9 lb of PE/MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1040 Btu/cf. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 1-5 and the procedures specified in OAC rule 3745-17-03(B)(9) while firing natural gas.

- 1.c Emission Limitation:

0.040 lb of PE per MMBtu of actual heat input (when firing blast furnace gas)

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 0.826 lb of PE/MM scf of blast furnace gas (facility's measurement and calculation) by 75 Btu/cf. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 1-5 and the procedures specified in OAC rule 3745-17-03(B)(9) while firing blast furnace gas.

## V. Testing Requirements (continued)

### 1.d Emission Limitation:

1.20 lbs of SO<sub>2</sub> per MMBtu

Applicable Compliance Method:

When firing natural gas, compliance with this limitation may be assumed due to the negligible percent sulfur, by weight, in the fuel.

When firing blast furnace gas, compliance may be determined by dividing the emission factor of 2.2 lbs of SO<sub>2</sub>/MM scf of blast furnace gas (facility's emission factor) by 75 Btu/cf.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 6 while firing blast furnace gas.

- 1.e** Within 3 months after the issuance of this permit and within 6 months prior to the expiration of this permit, the permittee shall conduct or have conducted emission tests for this emissions unit in order to demonstrate compliance with the allowable mass emission rates for particulates and sulfur dioxide. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 1-5 and 6 of 40 CFR Part 60, Appendix A while the No. 9 BF boiler is operating at maximum capacity.

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

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

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 13 BF Boiler (B013)  
**Activity Description:** Steam Boiler

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
No. 13 blast furnace boiler (380 MMBtu/hr natural gas, fuel oil #2 and blast furnace gas fired boiler)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.
	OAC rule 3745-17-10(B)(1)	See Section A.I.2.a. and b. below.
	OAC rule 3745-18-53(D)(3)	SO <sub>2</sub> : 0.31 lb per MMBtu of actual heat input

##### 2. Additional Terms and Conditions

- 2.a The maximum particulate emissions from this emissions unit shall be limited to 0.020 lb/MMBtu of actual heat input when firing only natural gas and/or No. 2 fuel oil.
- 2.b The maximum particulate emissions from this emissions unit shall be limited to 0.040 lb/MMBtu of actual heat input when firing blast furnace gas or any mixture of blast furnace gas with other gaseous fuels and/or No. 2 fuel oil.

##### II. Operational Restrictions

1. The permittee shall burn only natural gas, No. 2 fuel oil, and/or blast furnace gas in this emissions unit.  
 The permittee shall burn only No. 2 fuel oil with a maximum sulfur content of 0.3% by weight.
2. The quality of the oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in Section A.I above.

##### III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a prohibited fuel (i.e., one other than natural gas, blast furnace gas and/or distillate oil), the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

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

2. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

- a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

- b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu).

3. The permittee shall perform or require the supplier to perform the fuel oil analyses for sulfur content (lbs/MMBtu) and heat content (Btu/gallon) in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the Ohio EPA Northeast District Office.

### **IV. Reporting Requirements**

1. The permittee shall notify the Director (the Ohio EPA, Northeast District Office) in writing of each record that shows a deviation of the allowable sulfur content limitation of .3% by weight and the allowable sulfur dioxide emission limitation of .31 lb per mmBtu (based upon the calculated sulfur dioxide emission rate). The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Northeast District Office) within 30 days after the deviation occurs.
2. The permittee shall submit deviation (excursion) reports that identify each day when a prohibited fuel (i.e., one other than natural gas and/or distillate oil) was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

### **V. Testing Requirements**

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

**V. Testing Requirements (continued)**

**1.a** Emission Limitation:

0.31 lb of SO<sub>2</sub> per MMBtu of actual heat input.

Applicable Compliance Method:

When firing distillate oil, compliance with the allowable sulfur dioxide emission limitation may be demonstrated by documenting that the sulfur content of each shipment of oil received or each daily sample collected during a calendar month meets the limitation.

When firing only natural gas, compliance with this limitation may be assumed due to the negligible percent sulfur, by weight, in the fuel.

When firing only blast furnace gas, compliance may be determined by dividing the emission factor of 2.2 lb of SO<sub>2</sub>/MM scf of blast furnace gas (facility's measurement and calculation) by 75 Btu/cf.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 6 while firing distillate oil.

**1.b** Emission Limitation:

0.020 lb of PE per MMBtu of actual heat input (when firing natural gas and/or No. 2 Fuel Oil)

Applicable Compliance Method:

When firing distillate oil, compliance may be based upon an emission factor of 2 lb/1000 gallons. When firing natural gas, compliance may be based upon an emission factor of 1.9 lb/MM scf. These emission factors are specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.3, Table 1.3-1, version 9/98, and Section 1.4, Table 1.4-2, version 7/98, respectively.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 1-5 and the procedures specified in OAC rule 3745-17-03(B)(9) while firing fuel oil No.2.

**1.c** Emission Limitation:

0.040 lb of PE per MMBtu of actual heat input (when firing blast furnace gas)

Applicable Compliance Method

Compliance may be determined by dividing the emission factor of 0.826 lb of PE/MM scf of blast furnace gas (facility's measurement and calculation) by 75 Btu/cf. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 1-5 and the procedures specified in OAC rule 3745-17-03(B)(9) while firing blast furnace gas.

**V. Testing Requirements (continued)**

**1.d** Emission Limitation:

20% opacity of visible particulate emissions as a 6-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for the No.13 BF Boiler identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(1) of OAC rule 3745-17-03.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Iron Ore Unloading & Transfer (F002)

**Activity Description:** Transfer of Blast furnace raw material, iron ore pellets, from vessel (ship) to on-site storage pile(s) via conveyors, transfer stations, and stackers

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Iron ore pellets unloading from vessel (ship) to on-site, transfer houses #1 and #2	OAC rule 3745-17-07(B)(1)  OAC rule 3745-17-08 (B)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average.  Reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.I.2.b through A.I.2.d)

##### 2. Additional Terms and Conditions

- 2.a The material handling operations that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

iron ore pellets unloading station  
 transfer houses # 1 and # 2  
 conveyor line A for iron ore  
 conveyor line B for iron ore  
 conveyor line C for iron ore  
 conveyor line D for iron ore  
 conveyor line E for iron ore

**2. Additional Terms and Conditions (continued)**

**2.b** The permittee shall employ reasonably available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure(s) to ensure compliance:

material handling operations:

iron ore pellets unloading

control measures:

application of sufficient water at the unloading station to control dust emissions from all subsequent conveyors and transfer points

material handling operations:

transfer houses #1 and # 2

control measures:

maintain the total enclosure around each transfer point

5 conveyor lines for iron ore:

control measure(s):

application of sufficient water at the unloading station to control dust emissions from all subsequent conveyors and transfer points.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

**2.c** For each material handling operation that is not adequately enclosed, the above-identified control measure shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure is necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure shall continue during the operation of the material handling operation(s) until further observation confirms that use of the control measure is unnecessary.

**2.d** Implementation of the above-mentioned control measure in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

1. Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

material handling operation(s)	minimum inspection frequency
iron ore pellets unloading	daily
iron ore conveyor belts (A-E)	daily

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

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. Within 2 months after the issuance of this permit, the permittee shall properly install, operate, and maintain equipment to monitor the amount of water applied as dust suppressant during unloading and transferring of iron ore. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). Thereafter, the permittee shall record the amount of water applied on a daily basis.
4. The permittee shall record the amount of iron ore unloaded each day.
5. The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure:
  - c. the dates the control measure was implemented; and
  - d. on a calendar quarter basis, the total number of days the control measure was implemented.

The information in 4.d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify any day when the application of water was not applied during unloading and transferring of iron ore.
2. The permittee shall submit, on a quarterly basis, records of the amount of water applied daily as a dust suppressant in this emissions unit and the average amount of water applied per ton of iron ore unloaded during the calendar quarter. These reports shall be submitted within 30 days following the end of each calendar quarter.
3. The permittee shall submit, on a quarterly basis, records of the amount of iron ore unloaded each day in this emissions unit. These reports shall be submitted within 30 days following the end of each calendar quarter.
4. The permittee shall submit deviation reports that identify any of the following occurrences:
  - a. each day during which an inspection was not performed by the required frequency; and
  - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.
5. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

### **V. Testing Requirements**

1. Compliance with the emissions limitation(s) in Sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following method(s):

**V. Testing Requirements (continued)**

**1.a** Emission Limitation:

Visible fugitive particulate emissions shall not exceed 20% opacity as a three-minute average.

Applicable Compliance Method:

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

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Limestone Unloading & Transfer (F003)

**Activity Description:** Transfer of Blast furnace raw material, limestone/dolomite, from vessel (ship) to on-site storage pile(s) via conveyors, transfer stations, and stackers

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Limestone/dolomite unloading from vessel (ship) to on-site, transfer houses #1 and #2	OAC rule 3745-17-07 (B)(1)  OAC rule 3745-17-08 (B)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average.  reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.I.2.b through A.I.2.d)

##### 2. Additional Terms and Conditions

- The material handling operations that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

limestone unloading station  
 transfer houses # 1 and # 2  
 conveyor line A for limestone/dolomite  
 conveyor line B for limestone/dolomite  
 conveyor line C for limestone/dolomite  
 conveyor line D for limestone/dolomite  
 conveyor line E for limestone/dolomite

**2. Additional Terms and Conditions (continued)**

**2.b** The permittee shall employ reasonably available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure(s) to ensure compliance:

material handling operation:

limestone/dolomite unloading

control measure:

application of sufficient water at the unloading station to control dust emissions from all subsequent conveyors and transfer points

material handling operations:

transfer houses #1 and # 2

control measure:

maintain the total enclosure around each transfer point

5 conveyor lines for limestone/dolomite:

control measure(s):

application of sufficient water at the unloading station to control dust emissions from all subsequent conveyors and transfer points.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

**2.c** For each material handling operation that is not adequately enclosed, the above-identified control measure shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure is necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure shall continue during the operation of the material handling operation(s) until further observation confirms that use of the control measure is unnecessary.

**2.d** Implementation of the above-mentioned control measure in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

1. Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

material handling operation(s)	minimum inspection frequency
limestone/dolomite unloading	daily
limestone dolomite conveyor belts (A -E)	daily

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

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. Within 2 months after the issuance of this permit, the permittee shall properly install, operate, and maintain equipment to monitor the amount of water applied as dust suppressant during unloading and transferring of limestone/dolomite. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). Thereafter, the permittee shall record the amount of water applied on a daily basis.
4. The permittee shall record the amount of limestone/dolomite unloaded each day.
5. The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure:
  - c. the dates the control measure was implemented; and
  - d. on a calendar quarter basis, the total number of days the control measure was implemented.

The information in 4.d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

### IV. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
  - a. each day during which an inspection was not performed by the required frequency; and
  - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.
2. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.
3. The permittee shall submit, on a quarterly basis, records of the amount of water applied daily as a dust suppressant in this emissions unit and the average amount of water applied per ton of limestone/dolomite unloaded during the calendar quarter. These reports shall be submitted within 30 days following the end of each calendar quarter.

### V. Testing Requirements

1. Compliance with the emissions limitation(s) in Sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following method(s):

**1.a** Emission Limitation:

Visible fugitive particulate emissions shall not exceed 20% opacity as a three-minute average.

Applicable Compliance Method:

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

Facility Name: **Republic Technologies International, LLC**  
Facility ID: **02-47-08-0229**  
Emissions Unit: **Limestone Unloading & Transfer (F003)**

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Raw Matl Storage Piles (F004)

**Activity Description:** Storage Piles

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Load-in and load-out of storage piles (see Section A.1.2.a for identification of storage piles)	OAC rule 3745-17-07 (B)(8)(b)	Visible particulate emissions shall not exceed 20% opacity.
	OAC rule 3745-17-08(B), (B)(6)	Reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.1.2.b, A.1.2.c and A.1.2.f)
Wind erosion from storage piles (see Section A.1.2.a for identification of storage piles)	OAC rule 3745-17-07(B)(8)(d)	Visible particulate emissions from wind erosion shall not exceed 10% opacity.
	OAC rule 3745-17-08(B), (B)(6)	Reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.1.2.d through A.1.2.f)

##### 2. Additional Terms and Conditions

- 2.a The storage piles that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

iron ore pellets

limestone/dolomite

- 2.b The permittee shall employ reasonably available control measures on all load-in and load-out operations associated with the storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the load-in and load-out materials with water to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

**2. Additional Terms and Conditions (continued)**

- 2.c** The above-mentioned control measure shall be employed for each load-in and load-out operation of each storage pile if the permittee determines, as a result of the inspections conducted pursuant to the monitoring section of this permit, that the control measure is necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure shall continue during any such operation until further observation confirms that use of the measure is unnecessary.
- 2.d** The permittee shall employ reasonably available control measures for wind erosion from the surfaces of all storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat each storage pile with water via water spray at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.e** The above-mentioned control measure shall be employed for wind erosion from each pile if the permittee determines, as a result of the inspections conducted pursuant to the monitoring section of this permit, that the control measure is necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measure shall not be necessary for a storage pile that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.
- 2.f** Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

- 1.** Except as otherwise provided in this section, the permittee shall perform inspections of each load-in operation at each storage pile in accordance with the following frequencies:

Storage pile identification:    Minimum load-in inspection frequency:

iron ore pellets	daily
limestone/dolomite	daily

- 2.** Except as otherwise provided in this section, the permittee shall perform inspections of each load-out operation at each storage pile in accordance with the following frequencies:

Storage pile identification:    Minimum load-inspection frequency:

iron ore pellets	daily
limestone/dolomite	daily

- 3.** Except as otherwise provided in this section, the permittee shall perform inspections of the wind erosion from pile surfaces associated with each storage pile in accordance with the following frequencies:

Storage pile identification:    Minimum wind erosion inspection frequency:

iron ore pellets	daily
limestone/dolomite	daily

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

4. No inspection shall be necessary for wind erosion from the surface of a storage pile when the pile is covered with snow and/or ice and for any storage pile activity if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
5. The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for load-in and load-out of a storage pile, and wind erosion from the surface of a storage pile. The inspections shall be performed during representative, normal storage pile operating conditions.
6. The permittee shall maintain records of the following information:
  - a. The date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
  - b. The date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
  - c. The dates the control measures were implemented; and
  - d. On a calendar quarter basis, the total number of days the control measures were implemented and, for wind erosion from pile surfaces, the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measure(s).

The information required in 7.d. shall be kept separately for (i) the load-in operations, (ii) the load-out operations, and (iii) the pile surfaces (wind erosion), and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

7. Within 2 months after the issuance of this permit, the permittee shall properly install, operate, and maintain equipment to monitor the amount of water applied as a dust suppressant at the storage piles. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). Thereafter, the permittee shall record the amount of water applied on a daily basis.

### **IV. Reporting Requirements**

1. The permittee shall submit deviation reports that identify any of the following occurrences:
  - a. Each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
  - b. Each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
2. The permittee shall submit, on a quarterly basis, records of the amount of water applied daily as a dust suppressant in this emissions unit. These reports shall be submitted within 30 days following the end of each calendar quarter.
3. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

### **V. Testing Requirements**

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

**V. Testing Requirements (continued)**

**1.a** Emission Limitation:

Visible particulate emissions from the load-in load-out operation shall not exceed 20% opacity.

Applicable Compliance Method:

Compliance with the emission limitation for the raw material storage piles identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standard 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.

**1.b** Emission Limitation:

Visible particulate emissions from wind erosion shall not exceed 10% opacity.

Applicable Compliance Method:

Compliance with the emission limitation for the raw material storage piles identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standard 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.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Plant Roadways & Parking Lots (F005)

**Activity Description:** Paved & aggregate roadways & parking lots

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
paved roadways and parking areas (see Section A.1.2.a)	OAC rule 3745-17-07 (B)(8)(a)	Visible particulate emissions from any paved roadways and parking areas shall not exceed 10% opacity. See Section A.1.2.k.
	OAC rule 3745-17-08 (B), (B)(8), (B)(9)	Reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.1.2.c, A.1.2.d, and A.1.2.f through A.1.2.j)
unpaved roadways and parking areas (see Section A.1.2.b)	OAC rule 3745-17-07 (B)(8)(a)	Visible particulate emissions from any unpaved roadways and parking areas shall not exceed 10% opacity. See Section A.1.2.k.
	OAC rule 3745-17-08 (B), (B)(2)	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.1.2.e through A.1.2.j)

**2. Additional Terms and Conditions**

**2.a** The paved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

paved roadways:	approximate one-way mileage of road segment:
RS001 - 21st. Street Gate	0.15
RS004 - Charleston Gate	0.28
RS006 - Main Road West	1.04
RS007 - Main Road East	1.29
RS008 - IP/SP&C0.	1.02
RS011 - Billet Caster	0.42
RS013 - Bar Mills North	0.42
RS014 - Bar Mills South	1.16

paved parking areas:	approximate one-way mileage of paved parking area:
PA001 - IP Lot	0.01
PA002 - SP&C Lot	0.01
PA003 - Systems Lot	0.01
PA004 - Security Lot	0.02
PA005 - Rolling Mill Lot	0.08
PA006 - Tech Center Lot	0.01
PA007 - Vine Avenue Lot	0.08
PA009 - Pearl Gate Lot	0.07
PA010 - General Office Lot	0.04
PA011 - Oakwood Avenue Lot	0.10

**2. Additional Terms and Conditions (continued)**

**2.b** The unpaved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

unpaved roadways: approximate one-way mileage of road segment:

RS002 - North Road West	1.47
RS003 - North Road East	3.46
RS005 - Ore Yard	0.28
RS009 - Bloom Caster/BOP Shop East	1.0
RS010 - Stein/Rolling Mill.	1.31
RS012 - Bloom Reheat Furnace	0.23

unpaved parking areas: approximate one-way mileage of unpaved parking area:

PA012 - Charleston Gate Lot	0.04
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- 2.c** The permittee shall employ reasonably available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the paved roadways and parking areas by employing self-propelled sweeper-vacuum machines at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.d** The permittee shall employ reasonably available control measures on the unpaved shoulders of all paved roadways for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved shoulders of all paved roadways with suitable dust suppressant chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.e** The permittee shall employ reasonably available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved roadways and parking areas with suitable dust suppressant chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.f** The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved or unpaved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
- 2.g** Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled with the control measure(s) specified above for paved surfaces. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas.

## **2. Additional Terms and Conditions (continued)**

- 2.h** The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
- 2.i** Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
- 2.j** Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.
- 2.k** The visible emission limitation and rule citations reflect the settlement agreement reached between Ohio EPA and the iron and steel production facilities concerning the iron and steel facilities' appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule containing the 10% opacity limitation was adopted by the Director of Ohio EPA in December, 1997. The USEPA and the iron and steel production facilities have agreed to consider the 10% opacity limitation as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of the limitation as a revision to the Ohio SIP for particulate matter, and during the time thereafter.

## **II. Operational Restrictions**

### **1. Operational Restrictions Concerning the Use of Dust Suppressants**

When a dust suppressant is used for controlling fugitive dust from the unpaved road segments and parking areas, the following restrictions apply:

- a. The permittee shall certify or possess certification that all dust suppressants used to control fugitive dust meet the PCB limitations set forth in 40 CFR 761, and that there are no listed hazardous wastes or characteristic hazardous wastes as set forth in 40 CFR 261.
- b. The permittee shall not apply used oil as defined by OAC rule 3745-279-01(A)(12) as a dust suppressant.
- c. The dust suppressant shall be applied in such a manner as to prevent pollution of waters of the State as required by the Ohio Revised Code, section 6111.

### III. Monitoring and/or Record Keeping Requirements

1. Except as otherwise provided in this section, the permittee shall perform inspections of the roadways and parking areas in accordance with the following frequencies:

paved roadways and parking areas	minimum inspection frequency
RS001 - 21st. Street Gate	weekly
RS004 - Charleston Gate	weekly
RS006 - Main Road West	weekly
RS007 - Main Road East	weekly
RS008 - IP/SP&C0.	weekly
RS011 - Billet Caster	weekly
RS013 - Bar Mills North	weekly
RS014 - Bar Mills South	weekly
PA001 - IP Lot	weekly
PA002 - SP&C Lot	weekly
PA003 - Systems Lot	weekly
PA004 - Security Lot	weekly
PA005 - Rolling Mill Lot	weekly
PA006 - Tech Center Lot	weekly
PA007 - Vine Avenue Lot	weekly
PA009 - Pearl Gate Lot	weekly
PA010 - General Office Lot	weekly
PA011 - Oakwood Avenue Lot	weekly

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

unpaved roadways and parking areas	minimum inspection frequency
RS002 - North Road West	daily
RS003 - North Road East	daily
RS009 - Bloom Caster/BOP Shop East	daily
RS010 - Stien/Rolling Mill	daily
RS012 - Bloom Reheat Furnace	daily
PA008 - Globe Avenue Lot	daily
PA012 - Charleston Gate Lot	daily

2. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
3. The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
  - c. the dates the control measures were implemented and for the paved roadways and parking areas, the types of control measures that were implemented; and
  - d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in 4.d. shall be kept separately for (i) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter

### IV. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
  - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
  - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
2. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

### V. Testing Requirements

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

**V. Testing Requirements (continued)**

**1.a** Emission Limitation:

Visible particulate emissions from any paved and unpaved roadways and parking areas shall not exceed 10% opacity.

Applicable Compliance Method:

Compliance with the emission limitation for the paved and unpaved roadways and parking areas identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standard of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraph (B)(3)(d) of OAC rule 3745-17-03.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Mixers & Direct Pouring Stations (F008)  
**Activity Description:** Transfer hot metal from torpedo cars to iron ladle

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Hot metal torpedo cars pouring station, equipped with a flame suppression system and a 416, 000 acfm baghouse as a secondary control system	OAC rule 3745-17-07(B)(1)	See Section A.I.2.a. below.
	OAC rule 3745-17-08(B)	See Section A.I.2.b. below.

##### 2. Additional Terms and Conditions

- 2.a Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.
- 2.b The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the use of natural gas flame suppression system over the molten iron during hot metal transfer operation, and venting of the remainder of the particulate emissions to the secondary control system (the BOP AQC baghouse).

The flame suppression system and the collection efficiency of the secondary control system shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust from the building housing this emissions unit.

For the particulate matter captured by the secondary control system, the system shall achieve an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions from the exhaust stack(s), whichever is less stringent.

## II. Operational Restrictions

1. The pressure drop across the secondary control system baghouse shall be maintained within the range of 3 to 8 inches of water while the emissions unit is in operation.

The permittee may petition to the Ohio EPA, Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA, Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

2. The flame suppression system shall be in operation at all times during pouring of molten steel into hot metal ladles.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain the flame suppression system in order to maximize the effectiveness of controlling the visible fugitive particulate emissions.
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 while the emissions unit is in operation.
3. The permittee shall maintain daily records of the following information:
  - a. The natural gas usage of the flame suppression system.
  - b. The number of pouring events of molten iron from the torpedo railroad car to the charging ladle.
4. For each day during which the permittee poured molten iron into a charging ladle without the use of the flame suppression system, the permittee shall maintain a record of each such occurrence.
5. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

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

6. 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. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.

### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify any day when the flame suppression system was not operating while the emissions unit was in operation.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the BOP AQC baghouse did not comply with the allowable range specified above, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly reports of the number of daily pouring events of molten iron from the torpedo railroad car to the charging ladle and the amount of natural gas used for the flame suppression system each day. Each report shall be submitted within 30 days following the end of the calendar quarter.
4. 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.
5. 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 6-month period.
6. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

### **V. Testing Requirements**

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

## V. Testing Requirements (continued)

### 1.a Emission Limitation:

0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

Within 3 months after the issuance of this permit and within 3 months prior to expiration of this permit, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rates for particulates. The compliance test shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while the mixers and direct pouring stations, the BOP "L" vessel, and the BOP "N" vessel are operating at their maximum capacities. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA, 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 appropriate 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 appropriate Ohio EPA, Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA, Northeast District Office.

### 1.b Emission Limitation:

Visible fugitive particulate emissions shall not exceed 20% opacity as a three-minute average.

Applicable Compliance Method:

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

### 1.c Emission Limitation:

No visible emissions from the baghouse stack

Applicable Compliance Method:

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

Facility Name: **Republic Technologies International, LLC**  
Facility ID: **02-47-08-0229**  
Emissions Unit: **Mixers & Direct Pouring Stations (F008)**

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Billet Caster (F010)

**Activity Description:** Continuous pouring of molten steel into caster molds

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Billet caster	OAC rule 3745-31-05(A)(3) PTI No. 19-071	The requirements of this rule are equivalent to the requirements of OAC rule 3745-17-07(B)(1) and OAC rule 3745-17-08(B).
	OAC rule 3745-17-07(B)(1)	See Section A.I.2.a. below.
	OAC rule 3745-17-08(B)	See Section A.I.2.b below.

##### 2. Additional Terms and Conditions

- 2.a Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.
- 2.b The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
  - i. Placing of the ladle cover directly over the ladle during the billet caster operation to eliminate or minimize the visible fugitive particulate emissions.
  - ii. Placing of the Tundish cover directly over the Tundish ladle during the billet caster operation to eliminate or minimize the visible fugitive particulate emissions.
  - iii. The use of water spray during the torch operation to eliminate or minimize the visible fugitive particulate emissions.

Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

##### II. Operational Restrictions

None

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain daily records of the amount of water applied during torch operation.
2. The permittee shall inspect the water spray daily to ensure that it is operating when the torch machines are in use.
3. The permittee shall maintain daily records of the amount of steel processed, in tons.
4. For each day during which the ladle and/or Tundish covers were not utilized during the caster operation, the permittee shall maintain a record of each such occurrence.
5. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

### IV. Reporting Requirements

1. The permittee shall submit, on a quarterly basis, records of the following:
  - a. the amount of water applied each day during the torch operation, in gallons; and
  - b. the amount of metal processed each day, in tons.

These reports shall be submitted within 30 days following the end of each calendar quarter.

2. The permittee shall submit deviation (excursion) reports that identify each day when water was not applied during the torch operation.
3. The permittee shall submit deviation (excursion) reports that identify each day when the ladle and/or Tundish covers were not utilized during the caster operation.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA, Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

### V. Testing Requirements

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

**V. Testing Requirements (continued)**

**1.a** Emission Limitation:

Visible fugitive particulate emissions shall not exceed 20% opacity as a three-minute average.

Applicable Compliance

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

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Bloom Caster (F011)

**Activity Description:** Continuous pouring of molten steel into caster molds

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
No. 2 continuous bloom caster including ladle transfer of leaded steel, equipped with a 53,900 acfm baghouse	OAC rule 3745-31-05(A)(3) PTI No. 02-11888	PE: 0.002 gr/dscf. See Section A.1.2.a.
		PE: 19.26 lbs/hr, 17.89 tpy. See Section A.1.2.b.
		PM10: 8.72 lbs/hr, 13.27 tpy. See Section A.1.2.c.
		Lead: 0.0712 lb/hr, 0.067 tpy. See Section A.1.2.d.
		Visible particulate emissions shall not exceed 5% opacity as a 6-minute average. See Sections A.1.2.e and A.1.2.f below.
	OAC rule 3745-17-07(A)(1)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08, OAC rule 3745-21-08(B), and OAC rule 3745-23-06.  The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	See Sections A.1.2.g and A.1.2.h.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08	See Section A.I.2.i. below.
	OAC rule 3745-23-06	See Section A.I.2.i. below.

**2. Additional Terms and Conditions**

- 2.a** The emissions from the caster is controlled by its own designated baghouse which has a particulate emission limit of 0.002 grain of particulate emissions per dry standard cubic of exhaust gases. This baghouse is only being used during production of leaded steel.
  
- 2.b** The particulate emission limitations of 19.26 lbs/hr and 17.89 tpy are a combination of emissions from the following sections of the bloom caster operation:
  - Ladle transfer
  - Casting
  - Flux handling
  - Tundish natural gas combustion
  - Tundish dump station
  - Spray chamber
  
- 2.c** The PM10 emission limitations of 8.72 lbs/hr and 13.27 tpy are a combination of emissions from the following sections of the bloom caster operation:
  - Ladle transfer
  - Casting
  - Flux handling
  - Tundish natural gas combustion
  - Tundish dump station
  - Spray chamber
  
- 2.d** The lead emission limitations of 0.0712 lbs/hr and 0.067 tpy are a combination of emissions from the following sections of the bloom caster operation:
  - Ladle transfer
  - Casting
  - Flux handling
  - Tundish natural gas combustion
  - Tundish dump station
  - Spray chamber
  
- 2.e** Particulate emissions captured by the fume collection system for the No. 2 continuous bloom caster shall be exhausted to the baghouse during leaded steel production. Visible particulate emissions from the baghouse stack shall not exceed 5% opacity as a 6-minute average.

## **2. Additional Terms and Conditions (continued)**

- 2.f** Visible particulate emissions of fugitive dust from the following operations associated with the No. 2 continuous bloom caster shall not exceed 5% opacity as a 6-minute average:
- i. addition of fluxes
  - ii. Tundish and ladle slag dumping
  - iii. caster pouring and cast steel cut-off torches
  - iv. initial Tundish filling period
  - v. continuous casting of leaded steel
  - vi. initial cooling of the Tundish
- 2.g** The permittee shall employ a refractory shroud and Tundish cover to minimize or eliminate visible particulate emissions of fugitive dust from molten steel transfer between the steel ladle and Tundish.
- 2.h** The permittee shall employ the following particulate emission control systems:
- a. A ladle cover shall be used at all times to minimize or eliminate visible particulate emissions of fugitive dust during ladle transfer of molten leaded steel from the No. 2 ladle metallurgy facility to the caster.
  - b. During leaded steel casting, a fume collection system consisting of evacuated ladle cover and close fitting hood over the Tundish shall be employed to minimize or eliminate visible particulate emissions of fugitive dust. A close fitting hood shall be employed over the Tundish to minimize visible fugitive particulate emissions during initial Tundish cooling. The collection system shall be designed to capture all the particulate and lead emissions from the molten leaded steel ladle and during initial Tundish colling.
- 2.i** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in PTI No. 02-11888.

## **II. Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 1 to 6 inches of water while the emissions unit is in operation.  
  
The permittee may petition to the Ohio EPA, Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA, Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.
2. The permittee shall restrict the production of leaded steel to 330,000 tons per year based upon a rolling 365-day summation.
3. The permittee shall restrict total steel throughout for the No. 2 ladle metallurgy facility and the No. 2 continuous bloom caster to 1,200,000 tons per year each, based upon a rolling 365-day summation. This restriction was part of the original Permit to Install No. 02-7768, issued May 12, 1994 and modified July 26, 1995.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain daily records of the following production information for this emissions unit:
  - a. daily production of leaded steel;
  - b. rolling 365-day summation of leaded steel production;
  - c. daily steel throughput for the No. 2 ladle metallurgy facility;
  - d. daily steel throughput for the No. 2 continuous bloom caster;
  - e. rolling 365-day summation of the steel throughput for the No. 2 ladle metallurgy facility; and
  - f. rolling 365-day summation of the steel throughput for the No. 2 continuous bloom caster.

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

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 once per day basis.
3. Within 2 months after the issuance of this permit, the permittee shall develop a formal operation and maintenance program for the No. 2 continuous bloom caster baghouse which shall include, at a minimum, an inspection frequency of once per month.
4. The permittee shall perform inspections of the fume collection system used to minimize or eliminate visible fugitive particulate emissions from the Tundish. The fume collection system, consisting of an evacuated ladle cover, close fitting hood over the Tundish, ductwork and fan, shall be inspected on a monthly basis.

The purpose of each inspection is to ensure that the collection and control efficiencies provided by the fan, fugitive dust capture system and baghouse are sufficient to minimize or eliminate visible fugitive particulate emissions to the extent possible with good engineering design and to comply with the particulate emission limitation for the Tundish, as specified in Section A.I.2.f. The inspections shall be performed during representative, normal operating conditions.

5. The permittee shall maintain records of the following information for each inspection:
  - a. the date and reason any required inspection was not performed;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to perform maintenance or repair the fan, fugitive capture system or fabric filter baghouse;
  - c. the date that any repair or maintenance of the fan, fugitive dust capture system or fabric filter baghouse was performed.
6. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day leaded steel production limitation for the facility.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day steel throughput restriction for the No. 2 ladle metallurgy facility and the No. 2 continuous bloom caster.
3. 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.

#### **IV. Reporting Requirements (continued)**

4. The permittee shall submit quarterly deviation (excursion) reports that identify any of the following occurrences:
  - a. each month during which an inspection was not performed by the required frequency; and
  - b. each instance when maintenance or repair of the fan, fugitive dust capture system or fabric filter baghouse, that was to be performed was a result of an inspection, was not performed.
5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible fugitive particulate emissions were observed from the from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to eliminate the visible stack and/or 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.
6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:

0.002 grain of particulate emissions per dry standard cubic foot of exhaust gases

Applicable Compliance Method:

Within 6 months after the issuance of this permit and 6 months prior to expiration of this permit, the permittee shall conduct, or have conducted, an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulate matter. The compliance test shall be conducted in accordance with the test methods and procedures specified in Method 1-4 and 5 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification. 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 fields office(s) refusal to accept of the emissions test(s).

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

## V. Testing Requirements (continued)

### 1.b Emission Limitation:

19.26 lbs of PE per hour

Applicable Compliance Method:

Compliance shall be determined by using the following equations:

Ladle transfer:

$$E = (A)*(B)*(1/C)*60$$

where:

E = ladle transfer particulate emissions, in lbs/hr

A = 0.000045 lb/ton of PE (air sampled conducted by company in 1996)

B = maximum weight per heat, 220 tons/heat

C = duration of operation, 45 mins/heat

60 = 60 minutes per hour

Casting:

$$E = (A)*(B)*(1/C)*60$$

where:

E = particulate emissions, in lbs/hr

A = 0.006108 lb/ton of PE (stack test result conducted in 1996)

B = maximum weight per heat, 220 tons/heat

C = duration of operation, 75 mins/heat

60 = 60 minutes per hour

Flux handling:

$$E = (A)*(B)*(1/C)$$

where:

E = particulate emissions, in lbs/hr

A = amount of flux material used per year, in tons/yr

B = 0.12 lb/ton of PE (submitted document by company titled the "Determination of Net Emissions and Emissions for 1.2 MM TPY of Cast Steel (which includes 0.3MM TPY Lead Steel)")

C = total hours of operation of the flux handling per year

Tundish natural gas:

$$E = (A)*(1/B)*(C)$$

where:

E = particulate emissions, in lb/hr

A = natural gas consumption per hour, in MMBtu/hr

B = natural gas heat content, 1030 Btu/cf

C = natural gas PE emission factor, 1.9 lb/MM scf (AP-42, Table 1.4-2, July 98 version)

Tundish dump station:

$$E = (A)*(B)*(1/C)$$

where:

E = particulate emissions, in lbs/hr

A = total number of dumps of material per year, dumps/yr

B = 5 lbs of PE/material dumped (submitted document by company titled the "Determination of Net Emissions and Emissions for 1.2 MM TPY of Cast Steel (which includes 0.3MM TPY Lead Steel)")

C = total hours of operation of tundish dump station per year

Spray chamber:

$$E = (A)*(B)*(1/C)$$

where:

E = particulate emissions, in lbs/hr

A = annual steel production, in tons/yr

B = 0.0164 lb/ton (submitted document by company titled the "Determination of Net Emissions and Emissions for 1.2 MM TPY of Cast Steel (which includes 0.3MM TPY Lead Steel)")

C = total hours of operation of spray chamber per year

The calculated particulate emissions from these equations shall then be added to give the total particulate emissions from this emissions unit.

## V. Testing Requirements (continued)

### 1.c Emission Limitation:

17.89 tons of PE per year

Applicable Compliance Method:

Compliance shall be determined by using the following equations:

Ladle transfer:

$$E = (A)*(B)*(C) / 2000 \text{ lbs}$$

where:

E = ladle transfer particulate emissions, in tons/yr

A = 0.000045 lb/ton of PE (air sampled conducted by company in 1996)

B = maximum weight per heat, 220 tons/heat

C = total number of heats per year

Casting:

$$E = (A)*(B)*(C) / 2000 \text{ lbs}$$

where:

E = particulate emissions, in tons/yr

A = 0.006108 lb/ton of PE (stack test result conducted in 1996)

B = maximum weight per heat, 220 tons/heat

C = total number of heats per year

Flux handling:

$$E = (A)*(B) / 2000 \text{ lbs}$$

where:

E = particulate emissions, in tons/yr

A = amount of flux material used per year, in tons/yr

B = 0.12 lb of PE/ton (submitted document by company titled the "Determination of Net Emissions and Emissions for 1.2 MM TPY of Cast Steel (which includes 0.3MM TPY Lead Steel)")

Tundish natural gas:

$$E = (A)*(1/B)*(C) / 2000 \text{ lbs}$$

where:

E = particulate emissions, in tons/yr

A = natural gas consumption per year, in MMBtu/yr

B = natural gas heat content, 1030 Btu/cf

C = natural gas PE emission factor, 1.9 lb/MM scf (AP-42, Table 1.4-2, July 98 version)

Tundish dump station:

$$E = (A)*(B) / 2000 \text{ lbs}$$

where:

E = particulate emissions, in tons/yr

A = total number of dumps of material per year, in dumps/yr

B = 5 lbs of PE/material dumped (submitted document by company titled the "Determination of Net Emissions and Emissions for 1.2 MM TPY of Cast Steel (which includes 0.3MM TPY Lead Steel)")

## **V. Testing Requirements (continued)**

Spray chamber:

$$E = (A) * (B) / 2000 \text{ lbs}$$

where:

E = particulate emissions, in lbs/hr

A = annual steel production, in tons/yr

B = 0.0164 lb/ton (submitted document by company titled the "Determination of Net Emissions and Emissions for 1.2 MM TPY of Cast Steel (which includes 0.3MM TPY Lead Steel)")

The calculated particulate emissions from these equations shall then be added to give the total particulate emissions from this emissions unit.

## V. Testing Requirements (continued)

### 1.d Emission Limitation:

8.72 lbs of PM10 per hour

Applicable Compliance Method:

Compliance shall be determined by using the following equations:

Ladle transfer:

$$E = (A)*(B)*(1/C)*60$$

where:

E = ladle transfer PM10, in lbs/hr

A = 0.000045 lb/ton of PM10 (air sampled conducted by company in 1996)

B = maximum weight per heat, 220 tons/heat

C = duration of operation, 45 mins/heat

60 = 60 minutes per hour

Casting:

$$E = (A)*(B)*(1/C)*60$$

where:

E = particulate emissions, in lbs/hr

A = 0.005894 lb/ton of PM10 (stack test result conducted in 1996)

B = maximum weight per heat, 220 tons/heat

C = duration of operation, 75 mins/heat

60 = 60 minutes per hour

Flux handling:

$$E = (A)*(B)*(1/C)$$

where:

E = particulate emissions, in lbs/hr

A = amount of flux material used per year, in tons/yr

B = 0.12 lb of PM10/ton (submitted document by company titled the "Determination of Net Emissions and Emissions for 1.2 MM TPY of Cast Steel (which includes 0.3MM TPY Lead Steel)")

C = total hours of operation of the flux handling per year

Tundish natural gas:

$$E = (A)*(1/B)*(C)$$

where:

E = particulate emissions, in lb/hr

A = natural gas consumption per hour, in MMBtu/hr

B = natural gas heat content, 1030 Btu/cf

C = natural gas PM10 emission factor, 1.9 lb/MM scf (AP-42, Table 1.4-2, July 98 version)

Tundish dump station:

$$E = (A)*(B)*(1/C)$$

where:

E = particulate emissions, in lbs/hr

A = total number of dumps of material per year, dumps/yr

B = 1.50 lbs of PM10/material dumped (submitted document by company titled the "Determination of Net Emissions and Emissions for 1.2 MM TPY of Cast Steel (which includes 0.3MM TPY Lead Steel)")

Facility Name: **Republic Technologies International, LLC**

Facility ID: **02-47-08-0229**

Emissions Unit: **Bloom Caster (F011)**

C = total hours of operation of tundish dump station per year

Spray chamber:

$$E = (A)*(B)*(1/C)$$

where:

E = particulate emissions, in lbs/hr

A = annual steel production, in tons/yr

B = 0.0164 lb of PM10/ton (submitted document by company titled the "Determination of Net Emissions and Emissions for 1.2 MM TPY of Cast Steel (which includes 0.3MM TPY Lead Steel)")

C = total hours of operation of spray chamber per year

The calculated PM10 emissions from these equations shall then be added to give the total PM10 emissions from this emissions unit.

## V. Testing Requirements (continued)

### 1.e Emission Limitation:

0.067 ton of PM10 per year

Applicable Compliance Method:

Compliance shall be determined by using the following equations:

Ladle transfer:

$$E = (A)*(B)*(C) / 2000 \text{ lbs}$$

where:

E = ladle transfer particulate emissions, in tons/yr

A = 0.000045 lb/ton of PM10 (air sampled conducted by company in 1996)

B = maximum weight per heat, 220 tons/heat

C = total number of heats per year

Casting:

$$E = (A)*(B)*(C) / 2000 \text{ lbs}$$

where:

E = particulate emissions, in tons/yr

A = 0.006108 lb/ton of PM10 (stack test result conducted in 1996)

B = maximum weight per heat, 220 tons/heat

C = total number of heats per year

Flux handling:

$$E = (A)*(B) / 2000 \text{ lbs}$$

where:

E = particulate emissions, in tons/yr

A = amount of flux material used per year, in tons/yr

B = 0.12 lb of PM10 /ton (submitted document by company titled the "Determination of Net Emissions and Emissions for 1.2 MM TPY of Cast Steel (which includes 0.3MM TPY Lead Steel)")

Tundish natural gas:

$$E = (A)*(1/B)*(C) / 2000 \text{ lbs}$$

where:

E = particulate emissions, in tons/yr

A = natural gas consumption per year, in MMBtu/yr

B = natural gas heat content, 1030 Btu/cf

C = natural gas PM10 emission factor, 1.9 lb/MM scf (AP-42, Table 1.4-2, July 98 version)

Tundish dump station:

$$E = (A)*(B) / 2000 \text{ lbs}$$

where:

E = particulate emissions, in tons/yr

A = total number of dumps of material per year, in dumps/yr

B = 1.5 lbs of PM10/material dumped (submitted document by company titled the "Determination of Net Emissions and Emissions for 1.2 MM TPY of Cast Steel (which includes 0.3MM TPY Lead Steel)")

## V. Testing Requirements (continued)

Spray chamber:

$$E = (A) * (B) / 2000 \text{ lbs}$$

where:

E = particulate emissions, in lbs/hr

A = annual steel production, in tons/yr

B = 0.0164 lb of PM10/ton (submitted document by company titled the "Determination of Net Emissions and Emissions for 1.2 MM TPY of Cast Steel (which includes 0.3MM TPY Lead Steel)")

The calculated PM10 emissions from these equations shall then be added to give the total PM10 emissions from this emissions unit.

### 1.f Emission Limitation:

0.0712 lb of lead per hour

Applicable Compliance Method:

Compliance shall be determined by using the following equations:

Ladle transfer:

$$E = (A) * (B) * (1/C) * 60$$

where:

E = lead emission, in lbs/hr

A = 0.000002 lb/ton of lead (submitted document by company titled the "Determination of Net Emissions and Emissions for 1.2 MM TPY of Cast Steel (which includes 0.3MM TPY Lead Steel)")

B = maximum weight per heat, 220 tons/heat

C = duration of operation, 45 mins/heat

60 = 60 minutes per hour

Casting:

$$E = (A) * (B) * (1/C) * 60$$

where:

E = lead emissions, in lbs/hr

A = 0.000279 lb/ton of lead (stack test result conducted in 1996)

B = maximum weight per heat, 220 tons/heat

C = duration of operation, 75 mins/heat

60 = 60 minutes per hour

Spray chamber:

$$E = (A) * (B) * (1/C) * 60$$

where:

E = lead emissions, in lbs/hr

A = maximum weight per heat, in tons/ht

B = 0.000122 lb of lead/ton (submitted document by company titled the "Determination of Net Emissions and Emissions for 1.2 MM TPY of Cast Steel (which includes 0.3MM TPY Lead Steel)")

C = duration of operation per heat, mins/ht.

60 = 60 minutes per hour

The calculated lead emissions from these equations shall then be added to give the total lead emissions from this emissions unit.

## V. Testing Requirements (continued)

### 1.g Emission Limitation:

0.067 ton of lead per year

Applicable Compliance Method:

Compliance shall be determined by using the following equations:

Ladle transfer:

$$E = (A)*(B)*(C) / 2000 \text{ lbs}$$

where:

E = ladle transfer particulate emissions, in tons/yr

A = 0.000002 lb of lead/ton (submitted document by company titled the "Determination of Net Emissions and Emissions for 1.2 MM TPY of Cast Steel (which includes 0.3MM TPY Lead Steel)")

B = maximum weight per heat, 220 tons/heat

C = total number of heats per year

Casting:

$$E = (A)*(B)*(C) / 2000 \text{ lbs}$$

where:

E = particulate emissions, in tons/yr

A = 0.000279 lb of lead/ton (stack test result conducted in 1996)

B = maximum weight per heat, 220 tons/heat

C = total number of heats per year

Spray chamber:

$$E = (A)*(B) / 2000 \text{ lbs}$$

where:

E = particulate emissions, in lbs/hr

A = annual steel production, in tons/yr

B = 0.000122 lb of lead/ton (submitted document by company titled the "Determination of Net Emissions and Emissions for 1.2 MM TPY of Cast Steel (which includes 0.3MM TPY Lead Steel)")

The calculated lead emissions from these equations shall then be added to give the total lead emissions from this emissions unit.

### 1.h Emission Limitation:

5% opacity of visible particulate emissions from the baghouse stack as a 6-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for the No. 2 continuous bloom caster identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(1) of OAC rule 3745-17-03.

## **V. Testing Requirements (continued)**

### **1.i Emission Limitation:**

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

Applicable Compliance Method:

Compliance with the visible fugitive emission limitation associated with the No. 2 continuous bloom caster including the addition of fluxes, tundish and ladle slag dumping, caster pouring and cast steel cut-off torches shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

### **1.j Emission Limitation:**

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

Applicable Compliance Method:

Compliance with the visible fugitive emission limitation from the No. 2 continuous bloom caster during the initial tundish filling period, continuous casting of leaded steel, and initial cooling of the tundish shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Blast Furnace Raw Material Handling (F013)

**Activity Description:** Handling & transfer of Blast Raw Materials from Storage Piles to BF facility

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Blast furnace raw material handling	OAC rule 3745-17-07(B)(8)(b)  OAC rule 3745-17-08 (B)	Visible particulate emissions from any material handling operation shall not exceed 10% opacity. See Section A.1.2.d.  reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.1.2.b through A.1.2.c)

##### 2. Additional Terms and Conditions

- 2.a The material handling operation(s) that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

aggregate material unloading station

conveyor to transfer car

## 2. Additional Terms and Conditions (continued)

- 2.b** The permittee shall employ reasonably available control measures for the above-identified material handling operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure to ensure compliance:

material handling operation(s):  
aggregate material unloading station

control measure(s):  
use only aggregate material with inherently high moisture content of at least 5% during subsequent aggregate handling

material handling operation(s):  
conveyor to transfer car

control measure(s):  
use only aggregate material with inherently high moisture content of at least 5% during subsequent aggregate handling

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.c** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.
- 2.d** The visible emission limitation and rule citations reflect the settlement agreement reached between Ohio EPA and the iron and steel production facilities concerning the iron and steel facilities' appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule containing the 10% opacity limitation was adopted by the Director of Ohio EPA in December, 1997. The USEPA and the iron and steel production facilities have agreed to consider the 10% opacity limitation as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of the limitation as a revision to the Ohio SIP for particulate matter.

## II. Operational Restrictions

None

## III. Monitoring and/or Record Keeping Requirements

1. Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

material handling operation(s)	minimum inspection frequency
aggregate material unloading station	weekly
conveyor to transfer car	weekly

The above-mentioned inspections shall be performed during representative, normal operating conditions. The purpose of each inspection is to determine if additional control measures are needed to minimize or visible emissions of fugitive dust from the material handling operation.

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

2. The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement an additional control measure;
  - c. the dates that any additional control measure(s) was (were) implemented; and
  - d. on a calendar quarter basis, the total number of days the additional control measure(s) was (were) implemented.

The information in 2.d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

3. The permittee shall perform or require the supplier to perform monthly analyses for the moisture content of each of the raw materials, using the appropriate ASTM methods or equivalent methods as approved by the Director.
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 this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the weekly 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.

### IV. Reporting Requirements

1. The permittee shall submit quarterly reports to the Ohio EPA, Northeast District Office which consist of the monthly records of the moisture contents of each of the raw materials during the previous three calendar months. The reports shall be submitted by January 31, April 31, July 31, and October 31 of each year.
2. The permittee shall submit quarterly deviation reports that identify any of the following occurrences:
  - a. each week during which an inspection was not performed by the required frequency; and
  - b. each instance when any additional control measure, that was to be performed as a result of an inspection, was not implemented.
3. The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

## **V. Testing Requirements**

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

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 6 Ladle Dryer / Preheater (F021)  
**Activity Description:** Heat & Cure relined ladle refractory

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas fired No. 6 dryer/preheater, with maximum heat input capacity of 12 MMBtu per hour	OAC rule 3745-17-11	See Section A.I.2.a. below.
	OAC rule 3745-17-07(A)	See Section A.I.2.b. below.
	OAC rule 3745-18-06(E)	SO <sub>2</sub> : 293 lbs/hr See Section A.I.2.c. below.

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.
- 2.b This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- 2.c No monitoring, record keeping, and reporting requirements are required for SO<sub>2</sub> due to low SO<sub>2</sub> emissions from the natural gas combustion.

##### II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

##### III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

Facility Name: **Republic Technologies International, LLC**  
Facility ID: **02-47-08-0229**  
Emissions Unit: **No. 6 Ladle Dryer / Preheater (F021)**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** East Ladle Preheater (F022)  
**Activity Description:** Ladle Preheater

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas fired east ladle preheater, with maximum heat input capacity of 10 MMBtu per hour	OAC rule 3745-31-05(A)(3) PTI No. 02-13899	PE/PM10: 0.018 lb/hr, 0.08 tpy SO2: 0.006 lb/hr, 0.03 tpy NOx: 2.5 lbs/hr, 10.95 tpy CO: 0.816 lb/hr, 3.60 tpy VOC: 0.053 lb/hr, 0.23 tpy  Visible fugitive particulate emissions from the ladle shall not exceed 5% opacity as a 6-minute average.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-08(B) and 3745-23-06(B).
	OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11	See Section A.I.2.b. below.
	OAC rule 3745-18-06(E)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08	See section A.I.2.c. below.
	OAC rule 3745-23-06	See section A.I.2.c. below.

## 2. Additional Terms and Conditions

- 2.a All emissions from this emissions unit are due to natural gas combustion only. Therefore, no monitoring, record keeping and reporting requirements are required because the combustion of natural gas is inherently clean.
- 2.b The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.
- 2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in PTI No. 02-13899

## II. Operational Restrictions

- 1. The permittee shall only employ natural gas as fuel to preheat the ladle.

## III. Monitoring and/or Record Keeping Requirements

- 1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- 2. The permittee shall maintain records of the hours of operation for this emissions unit, for the purpose of calculating the actual annual emissions of each regulated pollutant.

## IV. Reporting Requirements

- 1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## V. Testing Requirements

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

- 1.a Emissions Limitation:

0.018 lb/hr of PE/PM10

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 1.9 pound of PE/PM10 per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 10 MMBtu/hr.

- 1.b Emissions Limitation:

0.08 ton of PE/PM10 per year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly PE/PM10 emission rate (in pounds per hour) by the actual hours of operation per year, and dividing by 2,000 lbs/ton.

**V. Testing Requirements (continued)**

**1.c** Emissions Limitation:

0.006 lb/hr of SO<sub>2</sub>

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 0.6 pound of SO<sub>2</sub> per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 10 MMBtu/hr.

**1.d** Emissions Limitation:

0.03 ton of SO<sub>2</sub> year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly SO<sub>2</sub> emission rate (in pounds per hour) by the actual hours of operation per year, and dividing by 2,000 lbs/ton.

**1.e** Emissions Limitation:

2.50 lbs of NO<sub>x</sub> hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 100 pounds of NO<sub>x</sub> per MM scf of natural gas from AP-42, Table 1.4-1 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 10 MMBtu/hr.

**1.f** Emissions Limitation:

10.95 tons of NO<sub>x</sub> year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly NO<sub>x</sub> emission rate (in pounds per hour) by the actual hours of operation per year, and dividing by 2,000 lbs/ton.

**1.g** Emissions Limitation:

0.816 ton of CO year

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 84 pounds of CO per MM scf of natural gas from AP-42, Table 1.4-1 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 10 MMBtu/hr.

**1.h** Emissions Limitation:

3.60 tons of CO year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly CO emission rate (in pounds per hour) by the actual hours of operation per year, and dividing by 2,000 lbs/ton.

**V. Testing Requirements (continued)**

**1.i** Emissions Limitation:

0.053 lb/hr of VOC

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 5.5 pounds of VOC per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 10 MMBtu/hr.

**1.j** Emissions Limitation:

0.23 ton of VOC year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly VOC emission rate (in pounds per hour) by the actual hours of operation per year, and dividing by 2,000 lbs/ton.

**1.k** Emissions Limitation:

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

Applicable Compliance Method:

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

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** West Ladle Preheater (F023)  
**Activity Description:** Ladle Preheater

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas fired west ladle preheater, with maximum heat input capacity of 10 MMBtu per hour	OAC rule 3745-31-05(A)(3) PTI No. 02-13899	PE/PM10: 0.018 lb/hr, 0.08 tpy SO2: 0.006 lb/hr, 0.03 tpy NOx: 2.5 lbs/hr, 10.95 tpy CO: 0.816 lb/hr, 3.60 tpy VOC: 0.53 lb/hr, 0.23 tpy  Visible fugitive particulate emissions from the ladle shall not exceed 5% opacity as a 6-minute average.  The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-08(B) and 3745-23-06(B).
	OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-18-06(E)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08	See section A.1.2.c. below.
	OAC rule 3745-23-06	See section A.1.2.c. below.

## 2. Additional Terms and Conditions

- 2.a All emissions from this emissions unit are due to natural gas combustion only. Therefore, no monitoring, record keeping and reporting requirements are required because the combustion of natural gas is inherently clean.
- 2.b The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.
- 2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in PTI No. 02-13899

## II. Operational Restrictions

- 1. The permittee shall only employ natural gas as fuel to preheat the ladle.

## III. Monitoring and/or Record Keeping Requirements

- 1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- 2. The permittee shall maintain records of the hours of operation for this emissions unit, for the purpose of calculating the actual annual emissions of each regulated pollutant.

## IV. Reporting Requirements

- 1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## V. Testing Requirements

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

- 1.a Emissions Limitation:

0.018 lb/hr of PE/PM10

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 1.9 pound of PE/PM10 per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 10 MMBtu/hr.

- 1.b Emissions Limitation:

0.08 ton of PE/PM10 per year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly PE/PM10 emission rate (in pounds per hour) by the actual hours of operation per year, and dividing by 2,000 lbs/ton.

**V. Testing Requirements (continued)**

**1.c** Emissions Limitation:

0.006 lb/hr of SO<sub>2</sub>

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 0.6 pound of SO<sub>2</sub> per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 10 MMBtu/hr.

**1.d** Emissions Limitation:

0.03 ton of SO<sub>2</sub> year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly SO<sub>2</sub> emission rate (in pounds per hour) by the actual hours of operation per year, and dividing by 2,000 lbs/ton.

**1.e** Emissions Limitation:

2.50 lbs of NO<sub>x</sub> hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 100 pounds of NO<sub>x</sub> per MM scf of natural gas from AP-42, Table 1.4-1 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 10 MMBtu/hr.

**1.f** Emissions Limitation:

10.95 tons of NO<sub>x</sub> year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly NO<sub>x</sub> emission rate (in pounds per hour) by the actual hours of operation per year, and dividing by 2,000 lbs/ton.

**1.g** Emissions Limitation:

0.816 ton of CO year

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 84 pounds of CO per MM scf of natural gas from AP-42, Table 1.4-1 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 10 MMBtu/hr.

**1.h** Emissions Limitation:

3.60 tons of CO year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly CO emission rate (in pounds per hour) by the actual hours of operation per year, and dividing by 2,000 lbs/ton.

**V. Testing Requirements (continued)**

**1.i** Emissions Limitation:

0.053 lb/hr of VOC

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 5.5 pounds of VOC per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 10 MMBtu/hr.

**1.j** Emissions Limitation:

0.23 tons of VOC year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly VOC emission rate (in pounds per hour) by the actual hours of operation per year, and dividing by 2,000 lbs/ton.

**1.k** Emissions Limitation:

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

Applicable Compliance Method:

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

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Heat Treat / Annealing Furnace (F024)

**Activity Description:** Heat Treating / Annealing Furnace

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas fired heat treat/annealing furnace, with maximum heat input capacity of 12.3 MMBtu/hr	OAC rule 3745-31-05(A)(3) PTI No. 02-13899	NOx: 0.13 lb/MMBtu, 1.6 lb/hr, 7.0 tpy CO: 1.0 lb/hr, 4.39 tpy VOC: 0.066 lb/hr, 0.29 tpy PE/PM10: 0.023 lb/hr, 0.10 tpy SO2: 0.007 lb/hr, 0.03 tpy  Visible particulate emissions from the stack shall not exceed 5% opacity as a 6-minute average.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-08(B) and 3745-23-06(B).
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-18-06	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08	See Section A.I.2.b. below.
	OAC rule 3745-23-06	See Section A.I.2.b. below.

## 2. Additional Terms and Conditions

- 2.a All emissions from this emissions unit are due to natural gas combustion only. Therefore, no monitoring, record keeping and reporting requirements are required because the combustion of natural gas is inherently clean.
- 2.b The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in PTI No. 02-13899

## II. Operational Restrictions

- 1. The permittee shall use only natural gas as fuel for this emissions unit.

## III. Monitoring and/or Record Keeping Requirements

- 1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- 2. The permittee shall maintain records of the hours of operation for this emissions unit, for the purpose of calculating the actual annual emissions of each regulated pollutant.

## IV. Reporting Requirements

- 1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## V. Testing Requirements

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

- 1.a Emission Limitations:

0.13 lb NO<sub>x</sub> per million Btu

Applicable Compliance Method:

Within 3 months after the issuance of this permit and within 6 months prior to the expiration of this permit, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for oxides of nitrogen. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 7 or 7E of 40 CFR Part 60, Appendix A while the Heat treat/Annealing Furnace is operating at maximum capacity.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the 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 Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the 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.

## V. Testing Requirements (continued)

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

**1.b** Emission Limitation:

1.60 lbs of NO<sub>x</sub> per hour

Applicable Compliance Method:

If required, emission tests shall be conducted in accordance with the test methods and procedures specified in Method 7 or 7E of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity.

**1.c** Emission Limitation:

7.0 tons of NO<sub>x</sub> per year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly NO<sub>x</sub> emission rate (in pounds per hour) by the actual hours of operation per year, and dividing by 2,000 lbs/ton.

**1.d** Emission Limitation:

1.0 lbs/hr of CO

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum heat input of 12.3 MMBtu/hr by the emission factor of 84 lbs of CO/MM scf and dividing by 1030 Btu (from AP-42, Table 1.4-1, 7/98 version). If required, emission tests shall be conducted in accordance with the test methods and procedures specified in Method 10E of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity.

**1.e** Emission Limitation:

4.39 tons of CO per year

Applicable Compliance Method:

Compliance may be determined by multiplying the hourly CO emission rate (in pounds per hour) by the actual hours of operation per year, and dividing by 2,000 lbs/ton.

**1.f** Emission Limitation:

0.066 lbs/hr of VOC

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum heat input of 12.3 MMBtu/hr by the emission factor of 5.5 lbs of VOC/MM scf and dividing by 1030 Btu (from AP-42, Table 1.4-2, 7/98 version). If required, emission tests shall be conducted in accordance with the test methods and procedures specified in Method 25 or 25A of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity.

**V. Testing Requirements (continued)**

**1.g** Emission Limitation:

0.29 tons of VOC per year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly VOC emission rate (in pounds per hour) by the hours of operation per year, and dividing by 2,000 lbs/ton.

**1.h** Emission Limitation:

0.023 lbs/hr of PE/PM10

Applicable Compliance Method:

If required, emission tests shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 1-5 and the procedures specified in OAC rule 3745-17-03 (B)(1).

**1.i** Emission Limitation:

0.10 tons of PE/PM10 per year

Applicable Compliance Method:

Compliance shall be determined by multiplying the actual heat input of 12.3 MMBtu/hr by the emission factor of 1.9 lbs of PE/MM scf and dividing by 1000 Btu (from AP-42, Table 1.4-2, 7/98 version). The product shall then be multiplied by the actual hours of operation per year, and dividing by 2,000 lbs/ton.

**1.j** Emission Limitation:

0.007 lb/hr of SO<sub>2</sub>

Applicable Compliance Method:

Compliance may be determined by multiplying the actual heat input of 12.3 MMBtu/hr by the emission factor of 0.6 lb of SO<sub>2</sub>/MM scf and dividing by 1000 Btu (from AP-42, Table 1.4-2, 7/98 version). If required, emission tests shall be conducted in accordance with the test methods and procedures specified in Method 6 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity.

**1.k** Emission Limitation:

0.03 ton of SO<sub>2</sub> per year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly SO<sub>2</sub> emission rate (in pounds per hour) by the actual hours of operation per year, and dividing by 2,000 lbs/ton.

**V. Testing Requirements (continued)**

**1.I Emission Limitation:**

5% opacity of visible particulate emissions as a 6-minute average

Applicable Compliance Method:

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

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** 12" Bar Mill Furnace (P026)  
**Activity Description:** Reheat Furnace

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas fired 12" bar mill furnace with maximum heat input capacity of 444 MMBtu per hour	OAC rule 3745-17-11	See Section A.I.2.a. below.
	OAC rule 3745-17-07(A)	See Section A.I.2.b. below
	OAC rule 3745-18-53(E)(4)	SO <sub>2</sub> : 1.98 lbs per MMBtu of actual heat input

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.
- 2.b This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- 2.c All emissions from this emissions unit are due to natural gas combustion only. Therefore, no monitoring, record keeping and reporting requirements for the SO<sub>2</sub> emissions are required because the combustion of natural gas is inherently clean.

#### II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

#### III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## **V. Testing Requirements**

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

1.a Emission Limitation:

1.98 lbs of SO<sub>2</sub> per MMBtu of actual heat input

Applicable Compliance Method:

Compliance shall be determined by dividing the emission factor of 0.60 pound of SO<sub>2</sub> per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1020 Btu/cf. If required, emission tests shall be conducted in accordance with the test methods and procedures specified in Method 6 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hot Scarfer (P051)  
**Activity Description:** Remove surface impurities

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Hot scarfer, equipped with a 52,600 acfm electrostatic precipitator (ESP)	OAC rule 3745-17-11	PE: 10.32 lbs per hour
	OAC rule 3745-17-07(A)(1)	See Section A.I.2.a. below.
	OAC rule 3745-17-07(B)(1)	See Section A.I.2.b. below.
	OAC rule 3745-17-08(B)	See Section A.I.2.c. below.

##### 2. Additional Terms and Conditions

- 2.a Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
- 2.b Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.
- 2.c The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the installation and use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the ESP.

The collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

##### II. Operational Restrictions

1. The average total combined power input (in kilowatts) to all fields of the ESP, when the emissions unit is in operation, shall be no less than 90 percent of the total combined power input, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation.

### **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall monitor and record the following on an daily basis during any operation of the ESP:
  - a. the secondary voltage, in kilovolts (kV), and the secondary current in amps, for each transformer rectifier (TR) set in the ESP;
  - b. the power input (in kilowatts) of each TR set for each hour (calculated by multiplying the secondary voltage (in kilovolts) by the secondary current (in amps) for each TR set); and
  - c. the total power input to the ESP for each hour (add together the power inputs for the TR sets operating during the hour).
2. The permittee shall record the following information for each week:
  - a. all periods of time during which the average total combined power input to the ESP, when the emissions unit was in operation, was less than 90 percent of the total combined power input, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation; and
  - b. the duration of the downtime for the ESP sections that are out of service, and the duration of the downtime for each section, when the associated emissions unit was in operation.
3. 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 any openings in the building housing this emissions unit. These building openings shall include, but are not limited to, doorways, windows, and roof monitors. The presence 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.

### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the average total combined power input to all fields of the ESP did not comply with the operational restriction specified in section A.II.1 of this permit. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.
2. The permittee shall submit written reports which (a) identify all days during which any visible fugitive particulate emissions were observed from any openings in the building housing 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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit quarterly summaries of the operating times for this emissions unit and the associated control equipment and monitoring equipment. The quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

### **V. Testing Requirements**

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

## V. Testing Requirements (continued)

### 1.a Emission Limitation:

10.32 lbs of particulate emission per hour

Applicable Compliance Method:

Within 3 months after the issuance of this permit within 6 months prior to the expiration of this permit, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulates. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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 or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, 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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

### 1.b Emission Limitation:

20% opacity of visible particulate emissions as a 6-minute average

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

### 1.c Emission Limitation:

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

Applicable Compliance Method:

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

## VI. Miscellaneous Requirements

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 5 Grinder (P057)  
**Activity Description:** Remove defects from semi-finished steel

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Rolling conditioning No.5 bar billet grinder, equipped with a 15,000 acfm baghouse	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a six-minute average.
	OAC rule 3745-17-11	PE: 7.06 pounds per hour
	OAC rule 3745-17-07(B)(1)	See section A.I.2.a below
	OAC rule 3745-17-08 (B)	See section A.I.2.b. below

##### 2. Additional Terms and Conditions

- 2.a Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.
- 2.b The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
  - i. the installation and use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the baghouse; and
  - ii. a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

##### II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water while the emissions unit is in operation.

The permittee may petition to the Ohio EPA, Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA, Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

### **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly basis.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

### **IV. Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible fugitive particulate emissions were observed from the from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to minimize or eliminate the visible particulate and/or visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

### **V. Testing Requirements**

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

## V. Testing Requirements (continued)

### 1.a Emission Limitations:

7.06 lbs of PE per hour

Applicable Compliance Method:

Within 3 months after the issuance of this permit and within 6 months prior to the expiration of this permit, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulates. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while the emissions unit is operating at a high fire condition rate only. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

### 1.b Emission Limitation:

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

Applicable Compliance Method:

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

### 1.c Emission Limitation:

Visible fugitive particulate emissions shall not exceed 20% opacity as a three-minute average.

Applicable Compliance Method:

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

## VI. Miscellaneous Requirements

**None**

Facility Name: **Republic Technologies International, LLC**  
Facility ID: **02-47-08-0229**  
Emissions Unit: **No. 5 Grinder (P057)**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hot Metal Desulfurization & Slag Skimming (P058)

**Activity Description:** Remove sulphur from pig iron

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Hot metal desulfurization and slag skimming, equipped with a 120,000 fabric filter baghouse	OAC rule 3745-31-05 (A)(3) PTI No. 19-051	The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-07(B)(1), OAC rule 3745-17-08(B), and OAC rule 3745-17-11.
	OAC rule 3745-17-07 (A)(1)	See Section A.I.2.a. below.
	OAC rule 3745-17-07(B)(1)	See Section A.I.2.b. below.
	OAC rule 3745-17-08 (B)	See Section A.I.2.c. below.
	OAC rule 3745-17-11	PE: 66.49 pounds per hour (See Section A.I.2.d.)

##### 2. Additional Terms and Conditions

- 2.a Visible particulate emission from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
- 2.b Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.
- 2.c The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
  - i. the installation and use of hoods, fan, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the baghouse; and
  - ii. a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.
- 2.d If the emissions testing required for this emissions unit demonstrates that the allowable emissions rate from Figure II is more stringent than 66.49 lbs/hour, the permittee shall comply with the more stringent limitation.

## **2. Additional Terms and Conditions (continued)**

- 2.e** There shall be no SO<sub>2</sub> emissions from this emissions unit.

## **II. Operational Restrictions**

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

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

## **IV. Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible fugitive particulate emissions were observed from the from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to minimize or eliminate the visible particulate and/or visible fugitive particulate emissions. These reports shall be submitted to the Director (Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

## **V. Testing Requirements**

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

## V. Testing Requirements (continued)

### 1.a Emission Limitations:

66.49 pounds of particulate emissions per hour (see Section A.I.2.e.)

Applicable Compliance Method:

Within 3 months after the issuance of this permit and within 6 months prior to the expiration of this permit, the permittee shall conduct or have conducted an outlet stack emission test and an inlet stack emission test to determine the uncontrolled mass emission rate for particulate matter for purposes of determining the applicability of Figure II of OAC rule 3745-17-11. The compliance test shall be conducted in accordance with the test methods and procedures specified in Method 5 and 9 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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

### 1.b Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a six-minute average.

Applicable Compliance Method:

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

### 1.c Emission Limitation:

Visible particulate fugitive emissions shall not exceed 20% opacity as a three-minute average.

Applicable Compliance Method:

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

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** East Billet Torch (P060)  
**Activity Description:** Cut billet caster rounds to length

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
East torch cutting machine equipped, with a 2,000 acfm baghouse	OAC rule 3745-31-05(A)(3) PTI No. 02-1708	The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-07(B)(1), OAC rule 3745-17-08(B), and OAC rule 3745-17-11.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average
	OAC rule 3745-17-07(B)(1)	See Section A.I.2.a. below.
	OAC rule 3745-17-08(B)	See Section A.I.2.b. below.
	OAC rule 3745-17-11	PE: 3.49 lbs per hour

##### 2. Additional Terms and Conditions

- 2.a Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.
- 2.b The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
  - i. the installation and use of hoods, fan, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the baghouse; and
  - ii. a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

## II. Operational Restrictions

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

The permittee may petition to the Ohio EPA, Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on once per week basis.
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 eliminate the visible emissions.
- 3.a The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

## IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports 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 (Ohio EPA, Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **IV. Reporting Requirements (continued)**

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 minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (Ohio EPA, Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
4. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

#### **V. Testing Requirements**

1. Compliance with the emissions limitation(s) in Section A.I of these terms and conditions shall be determined in accordance with the following method(s):
  - 1.a Emission Limitation:  
  
3.49 lbs of PE per hour  
  
Applicable Compliance Method:  
  
If required, emission tests shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 1-5 and the procedures specified in OAC rule 3745-17-03 (B)(1).
  - 1.b Emission Limitation:  
  
Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.  
  
Applicable Compliance Method:  
  
Compliance with the visible emission limitation shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(1) of OAC rule 3745-17-03.
  - 1.c Emission Limitation:  
  
Visible particulate fugitive emissions shall not exceed 20% opacity as a 3-minute average.  
  
Applicable Compliance Method:  
  
Compliance with the visible emission limitation shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** West Billet Torch (P061)  
**Activity Description:** Cut billet caster rounds to length

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
West torch cutting machine equipped, with a 2,000 acfm baghouse	PTI No. 02-1708	The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-07(B)(1), OAC rule 3745-17-08(B), and OAC rule 3745-17-11.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average
	OAC rule 3745-17-07(B)(1)	See Section A.I.2.a. below.
	OAC rule 3745-17-08(B)	See Section A.I.2.b. below.
	OAC rule 3745-17-11	PE: 3.49 lbs per hour

##### 2. Additional Terms and Conditions

- 2.a Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.
- 2.b The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
  - i. the installation and use of hoods, fan, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the baghouse; and
  - ii. a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

## II. Operational Restrictions

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

The permittee may petition to the Ohio EPA, Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

## III. Monitoring and/or Record Keeping Requirements

- 1.a 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 once per week basis.
- 2.a 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.
- 3.a The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

## IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports 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 (Ohio EPA, Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **IV. Reporting Requirements (continued)**

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 minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (Ohio EPA, Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
4. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:

3.49 lbs of PE per hour

Applicable Compliance Method:

If required, emission tests shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 1-5 and the procedures specified in OAC rule 3745-17-03 (B)(1).

- 1.b Emission Limitation:

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

Applicable Compliance Method:

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

- 1.c Emission Limitation:

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

Applicable Compliance Method:

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

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 6 Grinder (P062)  
**Activity Description:** Remove defects from semi-finished steel

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Rolling conditioning No. 6 bar billet brinder equipped with a 20,000 acfm baghouse	OAC rule 3745-31-05(A)(3) PTI No. 19-075	The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-07(B)(1), OAC rule 3745-17-08(B), and OAC rule 3745-17-11.
	OAC rule 3745-17-11	PE: 27.15 lbs/hr (based on Table I) (See A.I.2.d.)
	OAC rule 3745-17-07(B)(1)	See Section A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a six-minute average.
	OAC rule 3745-17-08 (B)	See Section A.I.2.b below.

##### 2. Additional Terms and Conditions

- 2.a Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.
- 2.b The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
  - i. the installation and use of hoods, fan, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the baghouse; and
  - ii. a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.
- 2.c As specified in the Fourth Amendment to Consent Decree, Case No. C-79-225, July 12, 1983, the particulate matter emissions from this emissions unit shall not exceed 0.01 grain of particulate emissions per dry standard cubic foot of exhaust gases.

## 2. Additional Terms and Conditions (continued)

- 2.d If the emissions testing required for this emissions unit demonstrates that the allowable emissions rate from Figure II is more stringent than 27.15 lbs/hour, the permittee shall comply with the more stringent limitation.

## II. Operational Restrictions

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

The permittee may petition to the Ohio EPA, Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA, Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on weekly basis.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

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.

#### IV. 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.
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 (Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. 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 6-month period.
4. The permittee shall submit the required quarterly deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

#### V. Testing Requirements

1. Compliance with the particulate and visible emission limitations in Section I. of these Additional Special Terms and Conditions shall be determined in accordance with the following methods:

- 1.a Emissions Limitation:

0.01 grain of particulate emissions per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

Within 6 months after the issuance of this permit and within 6 months prior to expiration of this permit, the permittee shall conduct or have conducted an outlet stack emission test and an inlet stack emission test to determine the uncontrolled mass emission rate for particulate matter for purposes of determining the applicability of Figure II of OAC rule 3745-17-11. Visible particulate emission readings from the exhaust stack(s) are also required for each run during the compliance test. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 5 and 9 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity.

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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA, Northeast District Office.

**V. Testing Requirements (continued)**

**1.b** Emission Limitation:

27.15 lbs of PE per hour

Applicable Compliance Method:

If required, emission tests shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity.

**1.c** Emission Limitation:

20% opacity of visible particulate emissions as a 6-minute average

Applicable Compliance Method:

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

**1.d** Emission Limitation:

Visible fugitive particulate emissions shall not exceed 20% opacity as a three-minute average.

Applicable Compliance Method:

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

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 1 BP Grinder (P063)  
**Activity Description:** Remove defects from semi-finished steel

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Rolling conditioning No.1 BP grinder, equipped with a 120,000 acfm baghouse	OAC rule 3745-31-05(A)(3) PTI No. 02-6920	See Section A.I.2.a. below.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08.
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	See Section A.I.2.b. below.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- 2.a Pursuant to paragraph 6 of the ' Additional Special Terms and Conditions' in PTI No. 02-6920, issued February 5, 1993, the allowable mass emissions from each of the Primary Mill BP grinders (P063 through P066) shall not exceed 0.010 gr/dscf. Visible fugitive particulate emissions from the roof monitors and other building openings attributable to the BP grinders shall not exceed 5% opacity, as a 3-minute average. Visible particulate emissions from any stack shall not exceed 10% opacity, as a 3-minute average.

## **2. Additional Terms and Conditions (continued)**

- 2.b** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
- i. the installation and use of hoods, fan, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the baghouse; and
  - ii. a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.
- 2.c** The baghouse serving this emissions unit also controls emissions from the No. 2, No. 3, and No. 4 BP grinders.

## **II. Operational Restrictions**

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

The permittee may petition to the Ohio EPA, Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA, Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

## **IV. Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to eliminate the visible particulate and/or visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **IV. Reporting Requirements (continued)**

3. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:

0.010 grain of particulate emissions per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

Within 6 months after the issuance of this permit and 6 months prior to expiration of this permit, the permittee shall conduct, or have conducted, an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulate matter. The compliance test shall be conducted in accordance with the test methods and procedures specified in Method 1-4 and 5 of 40 CFR Part 60, Appendix A while the No. 1, No.2 , No. 3, and No. 4 BP grinders are operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA, Northeast District Office.

- 1.b Emission Limitation:

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

Applicable Compliance Method:

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

**V. Testing Requirements (continued)**

**1.c** Emission Limitation:

Visible fugitive particulate emissions shall not exceed 5% opacity as a 3-minute average.

Applicable Compliance Method:

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

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 BP Grinder (P064)  
**Activity Description:** Remove defects from semi-finished steel

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Rolling conditioning No.2 BP grinder, equipped with a 120,000 acfm baghouse	OAC rule 3745-31-05(A)(3) PTI No. 02-6920	See Section A.I.2.a. below.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08.
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	See Section A.I.2.b. below.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- 2.a Pursuant to paragraph 6 of the ' Additional Special Terms and Conditions' in PTI No. 02-6920, issued February 5, 1993, the allowable mass emissions from each of the Primary Mill BP grinders (P063 through P066) shall not exceed 0.010 gr/dscf. Visible fugitive particulate emissions from the roof monitors and other building openings attributable to the BP grinders shall not exceed 5% opacity, as a 3-minute average. Visible particulate emissions from any stack shall not exceed 10% opacity, as a 3-minute average.

## **2. Additional Terms and Conditions (continued)**

- 2.b** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
- i. the installation and use of hoods, fan, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the baghouse; and
  - ii. a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.
- 2.c** The baghouse serving this emissions unit also controls emissions from the No. 1, No. 3, and No. 4 BP grinders.

## **II. Operational Restrictions**

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

The permittee may petition to the Ohio EPA, Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA, Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

## **IV. Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to eliminate the visible particulate and/or visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **IV. Reporting Requirements (continued)**

3. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:

0.010 grain of particulate emissions per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

Within 6 months after the issuance of this permit and 6 months prior to expiration of this permit, the permittee shall conduct, or have conducted, an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulate matter. The compliance test shall be conducted in accordance with the test methods and procedures specified in Method 1-4 and 5 of 40 CFR Part 60, Appendix A while the No. 1, No.2 , No. 3, and No. 4 BP grinders are operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA, Northeast District Office.

- 1.b Emission Limitation:

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

Applicable Compliance Method:

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

**V. Testing Requirements (continued)**

**1.c** Emission Limitation:

Visible fugitive particulate emissions shall not exceed 5% opacity as a 3-minute average.

Applicable Compliance Method:

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

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 BP Grinder (P065)  
**Activity Description:** Remove defects from semi-finished steel

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Rolling conditioning No.3 BP grinder, equipped with a 120,000 acfm baghouse	OAC rule 3745-31-05(A)(3) PTI No. 02-6920	See Section A.I.2.a. below.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08.
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	See Section A.I.2.b. below.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- 2.a Pursuant to paragraph 6 of the ' Additional Special Terms and Conditions' in PTI No. 02-6920, issued February 5, 1993, the allowable mass emissions from each of the Primary Mill BP grinders (P063 through P066) shall not exceed 0.010 gr/dscf. Visible fugitive particulate emissions from the roof monitors and other building openings attributable to the BP grinders shall not exceed 5% opacity, as a 3-minute average. Visible particulate emissions from any stack shall not exceed 10% opacity, as a 3-minute average.

## **2. Additional Terms and Conditions (continued)**

- 2.b** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
- i. the installation and use of hoods, fan, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the baghouse; and
  - ii. a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.
- 2.c** The baghouse serving this emissions unit also controls emissions from the No. 1, No. 2, and No. 4 BP grinders.

## **II. Operational Restrictions**

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

The permittee may petition to the Ohio EPA, Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA, Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

## **IV. Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to eliminate the visible particulate and/or visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

## V. Testing Requirements

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

- 1.a Emission Limitation:

0.010 grain of particulate emissions per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

Within 6 months after the issuance of this permit and 6 months prior to expiration of this permit, the permittee shall conduct, or have conducted, an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulate matter. The compliance test shall be conducted in accordance with the test methods and procedures specified in Method 1-4 and 5 of 40 CFR Part 60, Appendix A while the No. 1, No.2 , No. 3, and No. 4 BP grinders are operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA, Northeast District Office.

- 1.b Emission Limitation:

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

Applicable Compliance Method:

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

- 1.c Emission Limitation:

Visible fugitive particulate emissions shall not exceed 5% opacity as a 3-minute average.

Applicable Compliance Method:

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

Facility Name: **Republic Technologies International, LLC**  
Facility ID: **02-47-08-0229**  
Emissions Unit: **No. 3 BP Grinder (P065)**

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 4 BP Grinder (P066)  
**Activity Description:** Remove defects from semi-finished steel

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Rolling conditioning No.4 BP grinder, equipped with a 120,000 acfm baghouse	OAC rule 3745-31-05(A)(3) PTI No. 02-6920	See Section A.I.2.a. below  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08.
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	See Section A.I.2.b. below.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- 2.a Pursuant to paragraph 6 of the ' Additional Special Terms and Conditions' in PTI No. 02-6920, issued February 5, 1993, the allowable mass emissions from each of the Primary Mill BP grinders (P063 through P066) shall not exceed 0.010 gr/dscf. Visible fugitive particulate emissions from the roof monitors and other building openings attributable to the BP grinders shall not exceed 5% opacity, as a 3-minute average. Visible particulate emissions from any stack shall not exceed 10% opacity, as a 3-minute average.

## **2. Additional Terms and Conditions (continued)**

- 2.b** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
- i. the installation and use of hoods, fan, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the baghouse; and
  - ii. a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.
- 2.c** The baghouse serving this emissions unit also controls emissions from the No. 1, No. 2, and No. 3 BP grinders.

## **II. Operational Restrictions**

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

The permittee may petition to the Ohio EPA, Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA, Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

## **IV. Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to eliminate the visible particulate and/or visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **IV. Reporting Requirements (continued)**

3. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:

0.010 grain of particulate emissions per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

Within 6 months after the issuance of this permit and 6 months prior to expiration of this permit, the permittee shall conduct, or have conducted, an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulate matter. The compliance test shall be conducted in accordance with the test methods and procedures specified in Method 1-4 and 5 of 40 CFR Part 60, Appendix A while the No. 1, No.2 , No. 3, and No. 4 BP grinders are operating at maximum capacity.

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). Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA, Northeast District Office.

- 1.b Emission Limitation:

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

Applicable Compliance Method:

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

**V. Testing Requirements (continued)**

**1.c** Emission Limitation:

Visible fugitive particulate emissions shall not exceed 5% opacity as a 3-minute average.

Applicable Compliance Method:

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

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 1 LMF (P067)

**Activity Description:** No 1 Ladle Metallurgy Furnace - additional steel processing and refinements to achieve desired grades

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
No. 1 LMF equipped with a 60,000 acfm baghouse	OAC rule 3745-31-05 A(3) PTI No. 02-3465	Particulate emission from the baghouse stack shall not exceed 0.01 grain of particulate emissions per dry standard cubic foot of exhaust gases.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-07(B)(1), and OAC rule 3745-17-08(B).
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average
	OAC rule 3745-17-07(B)(1)	See Section A.I.2.a. below.
	OAC rule 3745-17-08(B)	See Section A.I.2.b. below.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.

## **2. Additional Terms and Conditions (continued)**

- 2.b** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
- i. the installation and use of hoods, fan, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the baghouse; and
  - ii. a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

## **II. Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 3.0 to 9.0 inches of water while the emissions unit is in operation.

The permittee may petition to the Ohio EPA, Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA, Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on once per shift basis.
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 location and color of the emissions;
  - b. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

#### **IV. Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports 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 6-month period.
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 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.
4. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:

0.01 grain of particulate emissions per dry standard cubic foot of exhaust gases

Applicable Compliance Method:

Within 3 months after the issuance of the permit and within 6 months prior to the expiration of this permit, the permittee shall conduct, or have conducted, an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulates. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA, Northeast District Office.

**V. Testing Requirements (continued)**

**1.b** Emission Limitation:

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

Applicable Compliance Method:

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

**1.c** Emission Limitation:

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

Applicable Compliance Method:

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

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Coke Screening & Transfer (P069)

**Activity Description:** Transfer of Blast furnace raw material, coke, from railcar to screening station

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Coke screening station, equipped with a 24,480 acfm baghouse	OAC rule 3745-31-05(A)(3) PTI No. 02-5573	Particulate emission from the baghouse stack shall not exceed 0.01 grain of particulate emissions per dry standard cubic foot of exhaust gases.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-07(B)(1), and OAC rule 3745-17-08(B).
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.
	OAC rule 3745-17-07(B)(1)	See Section A.I.2.a. below.
	OAC rule 3745-17-08(B)	See Section A.I.2.b. below.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- 2.a Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.

## **2. Additional Terms and Conditions (continued)**

- 2.b** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
- i. the installation and use of hoods, fan, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the baghouse; and
  - ii. a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

## **II. Operational Restrictions**

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

The permittee may petition to the Ohio EPA, Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA, Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on once per shift basis.
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 location and color of the emissions;
  - b. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

#### **IV. Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to 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.
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 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.

The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

#### **V. Testing Requirements**

1. Compliance with the emissions limitations in Sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitation:

0.01 grain of particulate emissions per dry standard cubic foot of exhaust gases

Applicable Compliance Method:

Within 3 months after the issuance of the permit and within 6 months prior to the expiration of this permit, the permittee shall conduct, or have conducted, an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulates. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

**V. Testing Requirements (continued)**

**1.b** Emission Limitation:

20% opacity of visible particulate emissions as a 6-minute average

Applicable Compliance

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

**1.c** Emission Limitation:

Visible fugitive particulate emissions shall not exceed 20% opacity as a three-minute average.

Applicable Compliance Method:

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

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Shot Blaster (P070)  
**Activity Description:** Remove scale from semi-finished steel

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Billet conditioning shot blaster equipped with a 5,000 acfm baghouse	OAC rule 3745-31-05(A)(3) PTI No. 02-6675	PE: 0.006 gr/dscf, 0.56 lb/hr PM10: 0.41 lb/hr
	OAC rule 3745-17-07(A)(1)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-07(B)(1), and OAC rule 3745-17-08(B). Visible particulate emissions shall not exceed 20% opacity as a 6-minute average
	OAC rule 3745-17-07(B)(1)	See Section A.I.2.a. below.
	OAC rule 3745-17-08(B)	See Section A.I.2.b. below.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- 2.a Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.

## 2. Additional Terms and Conditions (continued)

- 2.b** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
- i. the installation and use of hoods, fan, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the baghouse; and
  - ii. a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

## II. Operational Restrictions

1. The pressure drop across the fabric filter positive pressure baghouse shall be maintained within the range of 2.0 to 5.0 inches of water while the emissions unit is in operation.

The permittee may petition to the Ohio EPA, Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA, Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on once per week basis.
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 location and color of the emissions;
  - b. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

#### IV. 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 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 6-month period.
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 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.
4. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

#### V. Testing Requirements

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

**1.a** Emission Limitation:

0.006 grain of particulate emissions per dry standard cubic foot of exhaust gases

Applicable Compliance Method:

Within 3 months after the issuance of the permit and within 6 months prior to the expiration of this permit, the permittee shall conduct, or have conducted, an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulates. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

## V. Testing Requirements (continued)

### 1.b Emission Limitation:

0.56 lbs of PE per hour

Applicable Compliance Method:

If required, emission tests shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 1-5 and the procedures specified in OAC rule 3745-17-03 (B)(1).

### 1.c Emission Limitation:

0.41 lbs of PM10 per hour

Applicable Compliance Method:

If required, emission tests shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 201 and the procedures specified in OAC rule 3745-17-03 (B)(1).

### 1.d Emission Limitation:

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

Applicable Compliance Method:

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

### 1.e Emission Limitation:

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

Applicable Compliance Method:

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

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** 10" Walking Beam Furnace (P071)

**Activity Description:** Reheat Furnace

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10-inch bar mill walking beam furnace, with low NOx natural gas burners	OAC rule 3745-31-05(A)(3) PTI No. 02-6920	NOx: 0.15 pound per MMBtu  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-11, OAC rule 3745-18-53(D)(4), OAC rule 3745-21-08 and OAC rule 3745-23-06.
	OAC rule 3745-17-07(A)(1)	See Section A.I.2.a. below.
	OAC rule 3745-17-11	See Section A.I.2.b. below
	OAC rule 3745-18-53(D)(4)	SO2: 1.98 lbs per MMBtu of actual heat input
	OAC rule 3745-21-08	See Section A.I.2.c. below.
	OAC rule 3745-23-06	See Section A.I.2.c. below.

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.
- 2.b This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- 2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in PTI No. 02-6920.

## **II. Operational Restrictions**

1. The permittee shall burn only natural gas as fuel in this emissions unit.
2. The maximum annual steel throughput for this emissions unit shall be limited to 600,000 tons, based upon a rolling, 365-day summation.
3. The maximum annual heat input to this emissions unit from the natural gas combustion shall not exceed 826,380 MMBtu, based upon a rolling 365-day summation.

## **III. Monitoring and/or Record Keeping Requirements**

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain daily records of the following information:
  - a. the total steel throughput, in tons;
  - b. the 365-day summation of steel throughput;
  - c. the total amount of the natural gas burned, in MMBtu; and
  - d. the 365-day summation of natural gas burned, in MMBtu.

## **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day steel throughput limitation.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day heat input limitation.
4. The permittee shall submit the quarterly deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.I.c.

## **V. Testing Requirements**

1. Compliance with the emissions limitation in Section A.I. of these terms and conditions shall be determined in accordance with the following method:

## **V. Testing Requirements (continued)**

### **1.a** Emission Limitation: 0.15 lb of NOx per MMBtu

Applicable Compliance Method:

Within 6 months after the issuance of this permit and within 6 months prior to expiration of this permit, the permittee shall conduct, or have conducted, an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for nitrogen oxides. The compliance test shall be conducted in accordance with the test methods and procedures specified in Method 7 or 7E of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity.

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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA, Northeast District Office.

### **1.b** Emission Limitation:

1.98 lbs of SO<sub>2</sub> per MMBtu of actual heat input

Applicable Compliance Method:

Compliance shall be determined by dividing the emission factor of 0.60 pound of SO<sub>2</sub> per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf. If required, emission tests shall be conducted in accordance with the test methods and procedures specified in Method 6 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Slow Cool Furnace No. 1-N (P075)

**Activity Description:** Controlled cooling of steel

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas fired, steel slow cool furnace No. 1-N, with maximum heat input capacity of 14.87 MMBtu per hour	OAC rule 3745-31-05(A)(3) PTI No. 02-7953	NOx: 5.20 lbs per hour PE/PM10: 0.04 lb per hour SO2: 0.01 lb per hour OC: 0.08 lb per hour CO: 0.58 lb per hour  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-21-08, and OAC rule 3745-23-06.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	See Section A.I.2.a. below.
	OAC rule 3745-18-53(D)(4)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08	See Section A.I.2.b. below.
	OAC rule 3745-23-06	See Section A.I.2.b. below.

##### 2. Additional Terms and Conditions

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

## 2. Additional Terms and Conditions (continued)

- 2.b** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in PTI No. 02-7953.

## II. Operational Restrictions

1. The maximum annual natural gas fuel usage for this emissions unit shall not exceed 131.74 MMCF per year, based upon a rolling, 365-day summation of the natural gas fuel usage.
2. The permittee shall burn only natural gas as fuel in this emissions unit.

## III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain daily records of the following information:
  - a. the natural gas usage, in MMCF; and
  - b. the 365-day summation of the natural gas usage, in MMCF.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. Beginning with the first full calendar quarter after issuance of PTI No. 02-7953, the permittee shall submit quarterly reports to the Ohio EPA, Northeast District Office which shall specify the daily natural gas usage for this emissions unit. In addition, the quarterly reports shall include the natural gas usage for each rolling 365-day period during the quarter. The reports shall be submitted by January 15, April 15, July 15 and October 15 of each year.

## V. Testing Requirements

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

**1.a** Emission Limitation:

5.20 lbs of NO<sub>x</sub> per hour

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 360.50 lbs of NO<sub>x</sub> per MMCF of natural gas (emission factor for furnace with conventional burners, manufacturer's data) by the maximum heat input of 14.87 MMBtu/hr, and dividing by 1030 Btu/cf.

No testing is specifically required by this permit, but, if appropriate, the permittee may be requested to test in accordance to OAC rule 3745-15-04 (A). The NO<sub>x</sub> test(s) shall be conducted in accordance with the test methods and procedures specified in "USEPA Reference Method 7 or 7E of 40CFR Part 60, Appendix A" while the emissions unit is operating at or near maximum capacity.

**V. Testing Requirements (continued)**

**1.b** Emission Limitation:

0.04 lb of PE/PM10 per hour

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 3.0 lbs of PE/PM10 per MMCF of natural gas (emission factor for furnace with conventional burners, manufacturer's data) by the maximum heat input of 14.87 MMBtu/hr, and dividing by 1030 Btu/cf. If required, emission tests shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 1-5 and the procedures specified in OAC rule 3745-17-03 (B)(1) while the emissions unit is operating at or near maximum capacity.

**1.c** Emission Limitation:

0.01 lb of SO2 per hour

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 0.6 lbs of SO2 per MMCF of natural gas (emission factor for furnace with conventional burners, manufacturer's data) by the maximum heat input of 14.87 MMBtu/hr, and dividing by 1030 Btu/cf. If required, emission tests shall be conducted in accordance with the test methods and procedures specified in Method 6 of 40 CFR Part 60, Appendix A while the emissions unit is operating at or near maximum capacity.

**1.d** Emission Limitation:

0.008 lb of OC per hour

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 3.0 lbs of OC per MMCF of natural gas (emission factor for furnace with conventional burners, manufacturer's data) by the maximum heat input of 14.87 MMBtu/hr, and dividing by 1030 Btu/cf. If required, emission tests shall be conducted in accordance with the test methods and procedures specified in Method 25 or 25A of 40 CFR Part 60, Appendix A while the emissions unit is operating at or near maximum capacity.

**1.e** Emission Limitation:

0.58 lb of CO per hour

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 40 lbs of CO per MMCF of natural gas (emission factor for furnace with conventional burners, manufacturer's data) by the maximum heat input of 14.87 MMBtu/hr, and dividing by 1030 Btu/cf. If required, emission tests shall be conducted in accordance with the test methods and procedures specified in Method 10E of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity.

**V. Testing Requirements (continued)**

**1.f** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a six-minute average.

Applicable Compliance Method:

Compliance with the visible emission limitation shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Slow Cool Furnace No. 2-S (P076)

**Activity Description:** Controlled cooling of steel

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas fired, steel slow cool furnace No. 1-S, with maximum heat input capacity of 14.87 MMBtu per hour	OAC rule 3745-31-05(A)(3) PTI No. 02-7953	NOx: 5.20 lbs per hour PE/PM10: 0.04 lb per hour SO2: 0.01 lb per hour OC: 0.08 lb per hour CO: 0.58 lb per hour
	OAC rule 3745-17-11	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-21-08, OAC rule 3745-23-06.  The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	See Section A.I.2.a. below.
	OAC rule 3745-18-53(D)(4)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08	See Section A.I.2.b. below.
	OAC rule 3745-23-06	See Section A.I.2.b. below.

##### 2. Additional Terms and Conditions

- 2.a Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
- 2.b The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in PTI No. 02-7953.

## II. Operational Restrictions

1. The maximum annual natural gas fuel usage for this emissions unit shall not exceed 131.74 MMCF per year, based upon a rolling, 365-day summation of the natural gas fuel usage.
2. The permittee shall burn only natural gas as fuel in this emissions unit.

## III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain daily records of the following information:
  - a. the natural gas usage, in MMCF; and
  - b. the 365-day summation of the natural gas usage, in MMCF.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. Beginning with the first full calendar quarter after issuance of PTI No. 02-7953, the permittee shall submit quarterly reports to the Ohio EPA, Northeast District Office which shall specify the daily natural gas usage for this emissions unit. In addition, the quarterly reports shall include the natural gas usage for each rolling 365-day period during the quarter. The reports shall be submitted by January 15, April 15, July 15 and October 15 of each year.

## V. Testing Requirements

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

**1.a** Emission Limitation:

5.20 lbs of NO<sub>x</sub> per hour

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 360.50 lbs of NO<sub>x</sub> per MMCF of natural gas (emission factor for furnace with conventional burners, manufacturer's data) by the maximum heat input of 14.87 MMBtu/hr, and dividing by 1030 Btu/cf.

No testing is specifically required by this permit, but, if appropriate, the permittee may be requested to test in accordance to OAC rule 3745-15-04 (A). The NO<sub>x</sub> test(s) shall be conducted in accordance with the test methods and procedures specified in "USEPA Reference Method 7 or 7E of 40CFR Part 60, Appendix A" while the emissions unit is operating at or near maximum capacity.

**1.b** Emission Limitation:

0.04 lb of PE/PM<sub>10</sub> per hour

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 3.0 lbs of PE/PM<sub>10</sub> per MMCF of natural gas (emission factor for furnace with conventional burners, manufacturer's data) by the maximum heat input of 14.87 MMBtu/hr, and dividing by 1030 Btu/cf. If required, emission tests shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 1-5 and the procedures specified in OAC rule 3745-17-03 (B)(1) while the emissions unit is operating at or near maximum capacity.

## V. Testing Requirements (continued)

### 1.c Emission Limitation:

0.01 lb of SO<sub>2</sub> per hour

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 0.6 lbs of SO<sub>2</sub> per MMCF of natural gas (emission factor for furnace with conventional burners, manufacturer's data) by the maximum heat input of 14.87 MMBtu/hr, and dividing by 1030 Btu/cf. If required, emission tests shall be conducted in accordance with the test methods and procedures specified in Method 6 of 40 CFR Part 60, Appendix A while the emissions unit is operating at or near maximum capacity.

### 1.d Emission Limitation:

0.008 lb of OC per hour

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 3.0 lbs of OC per MMCF of natural gas (emission factor for furnace with conventional burners, manufacturer's data) by the maximum heat input of 14.87 MMBtu/hr, and dividing by 1030 Btu/cf. If required, emission tests shall be conducted in accordance with the test methods and procedures specified in Method 25 or 25A of 40 CFR Part 60, Appendix A while the emissions unit is operating at or near maximum capacity.

### 1.e Emission Limitation:

0.58 lb of CO per hour

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 40 lbs of CO per MMCF of natural gas (emission factor for furnace with conventional burners, manufacturer's data) by the maximum heat input of 14.87 MMBtu/hr, and dividing by 1030 Btu/cf. If required, emission tests shall be conducted in accordance with the test methods and procedures specified in Method 10E of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity.

### 1.f Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a six-minute average.

Applicable Compliance Method:

Compliance with the visible emission limitation shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Slow Cool Furnace No. 6 (P077)

**Activity Description:** Controlled cooling of steel

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas fired, steel slow cool furnace No. 6, with maximum heat input capacity of 48 MMBtu per hour	OAC rule 3745-31-05(A)(3) PTI No. 02-7273	NOx: 16.80 lbs per hour PE/PM10: 0.14 lb per hour SO2: 0.03 lb per hour OC: 0.27 lb per hour CO: 1.86 lb per hour
	OAC rule 3745-17-11	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-21-08, OAC rule 3745-23-06.  The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	See Section A.I.2.a. below.
	OAC rule 3745-18-53(D)(4)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08	See Section A.I.2.b. below.
	OAC rule 3745-23-06	See Section A.I.2.b. below.

##### 2. Additional Terms and Conditions

- 2.a Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
- 2.b The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in PTI No. 02-7273.

## II. Operational Restrictions

1. The maximum annual natural gas fuel usage for this emissions unit shall not exceed 212.62 MMCF per year, based upon a rolling, 365-day summation of the natural gas fuel usage.
2. The permittee shall burn only natural gas as fuel in this emissions unit.

## III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain daily records of the following information:
  - a. the natural gas usage, in MMCF; and
  - b. the 365-day summation of the natural gas usage, in MMCF.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. Beginning with the first full calendar quarter after issuance of PTI No. 02-7273, the permittee shall submit quarterly reports to the Ohio EPA, Northeast District Office which shall specify the daily natural gas usage for this emissions unit. In addition, the quarterly reports shall include the natural gas usage for each rolling 365-day period during the quarter. The reports shall be submitted by January 15, April 15, July 15 and October 15 of each year.

## V. Testing Requirements

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

**1.a** Emission Limitation:

16.80 lbs of NO<sub>x</sub> per hour

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 360.50 lbs of NO<sub>x</sub> per MMCF of natural gas (emission factor for furnace with conventional burners, manufacturer's data) by the maximum heat input of 48 MMBtu/hr, and dividing by 1030 Btu/cf.

No testing is specifically required by this permit, but, if appropriate, the permittee may be requested to test in accordance to OAC rule 3745-15-04 (A). The NO<sub>x</sub> test(s) shall be conducted in accordance with the test methods and procedures specified in "USEPA Reference Method 7 or 7E of 40CFR Part 60, Appendix A" while the emissions unit is operating at or near maximum capacity.

**1.b** Emission Limitation:

0.14 lb of PE/PM<sub>10</sub> per hour

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 3.0 lbs of PE/PM<sub>10</sub> per MMCF of natural gas (emission factor for furnace with conventional burners, manufacturer's data) by the maximum heat input of 48 MMBtu/hr, and dividing by 1030 Btu/cf. If required, emission tests shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 1-5 and the procedures specified in OAC rule 3745-17-03 (B)(1) while the emissions unit is operating at or near maximum capacity.

## V. Testing Requirements (continued)

### 1.c Emission Limitation:

0.03 lb of SO<sub>2</sub> per hour

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 0.6 lbs of SO<sub>2</sub> per MMCF of natural gas (emission factor for furnace with conventional burners, manufacturer's data) by the maximum heat input of 48 MMBtu/hr, and dividing by 1030 Btu/cf. If required, emission tests shall be conducted in accordance with the test methods and procedures specified in Method 6 of 40 CFR Part 60, Appendix A while the emissions unit is operating at or near maximum capacity.

### 1.d Emission Limitation:

0.27 lb of OC per hour

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 3.0 lbs of OC per MMCF of natural gas (emission factor for furnace with conventional burners, manufacturer's data) by the maximum heat input of 48 MMBtu/hr, and dividing by 1030 Btu/cf. If required, emission tests shall be conducted in accordance with the test methods and procedures specified in Method 25 or 25A of 40 CFR Part 60, Appendix A while the emissions unit is operating at or near maximum capacity.

### 1.e Emission Limitation:

1.86 lb of CO per hour

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 40 lbs of CO per MMCF of natural gas (emission factor for furnace with conventional burners, manufacturer's data) by the maximum heat input of 48 MMBtu/hr, and dividing by 1030 Btu/cf. If required, emission tests shall be conducted in accordance with the test methods and procedures specified in Method 10E of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity.

### 1.f Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a six-minute average.

Applicable Compliance Method:

Compliance with the visible emission limitation shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 7 Grinder (P078)  
**Activity Description:** Remove defects from semi-finished steel

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Fixed head type No. 7 bar billet grinder, equipped with a 13,065 acfm baghouse	OAC rule 3745-31-05(A)(3) PTI No. 02-7752	Particulate emission from the baghouse stack shall not exceed 0.01 grain of particulate emissions per dry standard cubic foot of exhaust gases.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-07(B)(1), and OAC rule 3745-17-08(B).
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	See Section A.I.2.a. below.
	OAC rule 3745-17-07(B)(1)	See Section A.I.2.b. below.
	OAC rule 3745-17-08 (B)	See Section A.I.2.c. below.

##### 2. Additional Terms and Conditions

- 2.a Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
- 2.b Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.

## **2. Additional Terms and Conditions (continued)**

- 2.c** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
- i. the installation and use of hoods, fan, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the baghouse; and
  - ii. a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

## **II. Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 11 inches of water while the emissions unit is in operation.

The permittee may petition to the Ohio EPA, Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on weekly basis.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

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

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.

### **IV. 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 permittee shall submit the required quarterly deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.
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 minimize or eliminate the visible particulate and/or visible fugitive particulate emissions. These reports shall be submitted to the Director (Ohio EPA, Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
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 (Ohio EPA, Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

### **V. Testing Requirements**

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

## V. Testing Requirements (continued)

### 1.a Emission Limitation:

0.01 grain of particulate emissions per dry standard cubic foot of exhaust gases

Applicable Compliance Method:

Within 6 months after the issuance of this permit and 6 months prior to expiration of this permit, the permittee shall conduct, or have conducted, an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulate matter. The compliance test shall be conducted in accordance with the test methods and procedures specified in Method 1-4 and 5 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

### 1.b Emission Limitation:

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

Applicable Compliance Method:

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

### 1.c Emission Limitation:

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

Applicable Compliance Method:

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

## VI. Miscellaneous Requirements

**None**

Facility Name: **Republic Technologies International, LLC**  
Facility ID: **02-47-08-0229**  
Emissions Unit: **No. 7 Grinder (P078)**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 LMF (P080)

**Activity Description:** No 2 Ladle Metallurgy Furnace - additional steel processing and refinements to achieve desired grades

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
No. 2 ladle metallurgy facility (No. 2 LMF), including No. 2 ladle arc furnace which is equipped with a 62,415 dscfm baghouse, and No. 2 LMF bulk alloy handling and No. 2 LMF alloy unloading, each of which is equipped with a 30,000 acfm baghouse.	OAC rule 3745-31-05(A)(3) PTI No. 02-1888	See Section A.I.2.a through A.I.2.j.
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- 2.a The particulate emissions from the No. 2 ladle arc furnace shall not exceed 0.002 grain of particulate emissions per dry standard cubic foot of exhaust gases.

## **2. Additional Terms and Conditions (continued)**

- 2.b** The particulate emissions from the No. 2 LMF bulk alloy handling shall not exceed 0.0052 grain of particulate emissions per dry standard cubic foot of exhaust gases.
- 2.c** The particulate emissions from the No. 2 LMF alloy unloading shall not exceed 0.0052 grain of particulate emissions per dry standard cubic foot of exhaust gases.
- 2.d** The total particulate emissions from this emissions unit shall not exceed 6.60 lbs/hr and 7.77 tpy. These particulate emission limits are a combination of emissions from each section of the No. 2 LMF, specifically, the No. 2 ladle arc furnace, the No. 2 LMF bulk alloy handling, and the No. 2 LMF alloy unloading. These emission limits include both stack and fugitive emissions from each section of the No. 2 LMF.
- 2.e** The total PM10 emissions from this emissions unit shall not exceed 5.43 lbs/hr and 6.42 tpy. These PM10 emission limits are a combination of emissions from each section of the No. 2 LMF, specifically, the No. 2 ladle arc furnace, the No. 2 LMF bulk alloy handling, and the No. 2 LMF alloy unloading. These emission limits include both stack and fugitive emissions from each section of the No. 2 LMF.
- 2.f** The lead emissions from the No. 2 ladle arc furnace baghouse stack shall not exceed 0.577 lb/hr and 0.397 tpy.
- 2.g** Visible particulate emissions of fugitive dust from the No. 2 ladle metallurgy facility shall not exceed 5% opacity as a 6-minute average.
- 2.h** Visible particulate emissions of fugitive dust from the No. 2 ladle arc furnace during the lead injection operation shall not exceed 5% opacity as a 6-minute average.
- 2.i** Particulate emissions captured by the fume collection system for the No. 2 ladle arc furnace shall be exhausted to a baghouse. Visible particulate emissions from the baghouse shall not exceed 5% opacity as a 6-minute average.
- 2.j** Particulate emissions captured by the dust collection systems for alloy unloading and alloy handling, including the bulk alloy receiving, storage and transfer system and the alloy system conveyors and transfer points, shall be exhausted to a baghouse. Visible particulate emissions from the fabric filter baghouse shall not exceed 5% opacity as a 6-minute average.
- 2.k** The No. 2 ladle metallurgy facility, including a ladle arc furnace and the attached alloy handling system, has been installed with a water-cooled hood covering the ladle and a fume collection system. The water-cooled hood covering and the fume collection system shall be capable of capturing generated emissions of particulates from this emissions unit, including the particulate emissions from bulk alloy material handling, alloy conveyors and transfer points, and steel processing in the ladle arc furnace.
- 2.l** The permittee shall employ and maintain the existing fume collection system for the No. 2 ladle arc furnace which shall capture the particulate and lead emissions from the ladle lead injection operation and vent them to a baghouse.

## **II. Operational Restrictions**

- 1.** The pressure drop across the baghouse serving the alloy handling system shall be maintained within the range of 1.0 to 6.0 inches of water while the emissions unit is in operation.

The permittee may petition to the Ohio EPA, Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

## II. Operational Restrictions (continued)

2. The pressure drop across the baghouse serving the alloy unloading system shall be maintained within the range of 1.0 to 5.0 inches of water while the emissions unit is in operation.

The permittee may petition to the Ohio EPA, Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

3. The pressure drop across the baghouse serving the No. 2 ladle arc furnace shall be maintained within the range of 4.0 to 12.0 inches of water while the emissions unit is in operation.

The permittee may petition to the Ohio EPA, Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

4. The permittee shall restrict the production of leaded steel to 330,000 tons per year, based upon a rolling, 365-day summation.
5. The permittee shall restrict the steel throughput for the No. 2 ladle metallurgy facility and the No. 2 continuous bloom caster to 1,200,000 tons per year each, based upon a rolling 365-day summation. This restriction was part of the original Permit to Install No. 02-7768, issued May 12, 1994 and modified July 26, 1995.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain records of the daily and 365-day summations of the steel production for the No. 2 ladle metallurgy facility and the No. 2 continuous bloom caster to document compliance with the production limitation specified herein.
2. The permittee shall maintain records of the daily and 365-day summations of the leaded steel production.
3. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the bulk alloy handling system baghouse, the bulk alloy unloading baghouse, and the No. 2 ladle arc furnace 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 each baghouse on a once per week basis.
4. The permittee shall develop a formal operation and maintenance program for the bulk alloy handling system baghouse, the bulk alloy unloading baghouse, and the No. 2 ladle arc furnace baghouse which shall include, at a minimum, an inspection frequency of once per month.
5. The permittee shall perform inspections of the fume/dust collection systems used to minimize or eliminate visible particulate emissions of fugitive dust from the air contaminant source operation including the bulk alloy receiving and storage, conveyor system and transfer points and steel processing in the No. 2 ladle arc furnace. The fume/dust collection system including the hoods, ductwork and fans shall be inspected on a once per month basis.
6. The purpose of the inspections is to ensure that the collection and control efficiencies provided by the fans, fume/dust collection system and fabric filter dust collectors are sufficient to minimize or eliminate visible particulate emissions of fugitive dust to the extent possible with good engineering design and to comply with the particulate emission limitation for the fabric filter collectors. The inspections shall be performed during representative, normal operating conditions.
7. The permittee may, upon receipt of written approval from the Ohio EPA, Northeast District Office, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.

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

8. The permittee shall perform daily checks during the lead injection operation for any visible emissions of fugitive dust from the furnace. 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.
9. The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed;
  - b. the dates of each inspection where it was determined by the permittee that it was necessary to perform maintenance or repair a fan, fume/dust collection system or fabric filter dust collector;
  - c. the date that any repair or maintenance of a fan, fume/dust collection system or fabric filter dust collector was performed.
10. 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 each stack serving No. 2 ladle metallurgy facility. 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.
11. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the building 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.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day leaded steel production limitation for the facility.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day steel throughput restriction for the No. 2 ladle metallurgy facility.
3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the bulk alloy handling system, the bulk alloy unloading system, and the No. 2 ladle arc furnace baghouses did not comply with the allowable ranges specified above.

#### **IV. Reporting Requirements (continued)**

4. The permittee shall submit quarterly deviation reports that identify all of the following occurrences:
  - a. each month during which an inspection was not performed by the required frequencies; and
  - b. each instance when maintenance or repair of a fan, fume/dust collection system of fabric filter dust collector, that was to be performed as a result of an inspection, was not performed.
5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the furnace and (b) describe any corrective actions taken to eliminate the visible 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.
6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.
7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving the No. 2 ladle metallurgy facility 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.
8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the building 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.

#### **V. Testing Requirements**

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

- 1.a Emission Limitations:

0.002 grain of particulate emissions per dry standard cubic foot of exhaust gases (No. 2 ladle arc furnace emission limitation)

Applicable Compliance Method:

Within 3 months after the issuance of this permit and within 6 months prior to the expiration of this permit, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulates. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while the No. 2 ladle arc furnace is operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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.

## V. Testing Requirements (continued)

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

### 1.b Emission Limitations:

0.0052 grain of particulate emissions per dry standard cubic foot of exhaust gases (No. 2 LMF bulk alloy handling)

#### Applicable Compliance Method:

Within 3 months after the issuance of this permit and within 6 months prior to the expiration of this permit, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulates. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while the No. 2 LMF bulk alloy handling is operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

## V. Testing Requirements (continued)

### 1.c Emission Limitations:

0.0052 grain of particulate emissions per dry standard cubic foot of exhaust gases (No. 2 LMF alloy unloading)

#### Applicable Compliance Method:

Within 3 months after the issuance of this permit and within 6 months prior to the expiration of this permit, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulates. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while the No. 2 LMF bulk alloy handling is operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

## V. Testing Requirements (continued)

### 1.d Emission Limitations:

6.60 lbs of PE per hour (stack and fugitive emission limits)

Applicable Compliance Method:

Compliance shall be determined by using the following equations:

No. 2 ladle arc furnace (stack emissions):

$$E = (A)*(B)*(1/C)*(D)*(F)$$

where:

E = No. 2 ladle arc furnace particulate emissions, in lbs/hr

A = most recent stack emission test, in gr/dscf

B = recorded maximum flow rate of baghouse from most recent stack test, in dscfm

C = 7,000 grains per pound

D = duration of operation, in 55 mins/heat

F = number of heats per hour

No. 2 LMF alloy handling (stack emissions):

$$E = (A)*(B)*(1/C)*(D) * 2$$

where:

E = alloy handling particulate emissions, in lbs/hr

A = most recent stack emission test, in gr/dscf

B = recorded maximum flow rate of baghouse from most recent stack test, in dscfm

C = 7,000 grains per pound

D = 30 minutes per hour

2 = number of heats per hour

No. 2 LMF alloy unloading (stack emissions):

$$E = (A)*(B)*(1/C)*(D)*(F)$$

where:

E = alloy unloading particulate emissions, in lbs/hr

A = most recent stack emission test, in gr/dscf

B = recorded maximum flow rate of baghouse from most recent stack test, in dscfm

C = 7,000 grains per pound

D = 1.1 minutes per heat

F = number of heats per hour

No. 2 ladle arc furnace (fugitive emissions):

$$E = A*B*(1-99\%)$$

where:

E = No. 2 ladle arc furnace fugitive emissions, in lbs/hr

A = uncontrolled mass emission rate, 0.2476 lb of PE/ton of steel produced (calculated emission factor by company using material balance calculation)

B = hourly production rate of steel, in tons/hr

99% = estimated capture efficiency

## V. Testing Requirements (continued)

No. 2 LMF alloy handling (fugitive emissions):

$$E = A * B * (1 - 99\%)$$

where:

E = No. 2 LMF alloy handling fugitive emissions, in lb/hr

A = uncontrolled mass emission rate, 0.1414 lb of PE/ton of steel produced (calculated emission factor by company)

B = hourly production rate of steel, in tons/hr

99% = estimated capture efficiency

No. 2 LMF alloy unloading (fugitive emissions):

$$E = A * (1 - 99\%)$$

where:

E = No. 2 LMF alloy unloading fugitive emissions, in lb/hr

A = uncontrolled mass emission rate, 27 lbs of PE/hr (calculated emission rate by company)

99% = estimated capture efficiency

The calculated stack and fugitive particulate emissions from each equation shall then be added to determine the total particulate emissions, in lbs/hr, from this emissions unit.

## V. Testing Requirements (continued)

### 1.e Emission Limitations:

7.77 tons of PE per year (stack and fugitive emission limits)

Applicable Compliance Method:

Compliance shall be determined by using the following equations:

No. 2 ladle arc furnace (stack emissions):

$$E = (A)*(B) / (C)*(D)*(F) / 2000 \text{ lbs}$$

where:

E = No. 2 ladle arc furnace particulate emissions, in lbs/hr

A = most recent stack emission test, in gr/dscf

B = recorded maximum flow rate of baghouse from most recent stack test, in dscfm

C = 7,000 grains per pound

D = duration of operation, 55 mins/heat

F = number of heats per year

2000 lbs = 2000 lbs/ton

No. 2 LMF alloy handling (stack emissions):

$$E = (A)*(B) / (C)*(D)*(F) / 2000 \text{ lbs}$$

where:

E = alloy handling particulate emissions, in lbs/hr

A = most recent stack emission test, in gr/dscf

B = recorded maximum flow rate of baghouse from most recent stack test, in dscfm

C = 7,000 grains per pound

D = duration of operation, 30 mins/heat

F = number of heats per year

2000 lbs = 2000 lbs per ton

No. 2 LMF alloy unloading (stack emissions):

$$E = (A)*(B) / (C)*(D)*(F) / 2000 \text{ lbs}$$

where:

E = alloy unloading particulate emissions, in lbs/hr

A = most recent stack emission test, in gr/dscf

B = recorded maximum flow rate of baghouse from most recent stack test, in dscfm

C = 7,000 grains per pound

D = duration of operation, 1.1 mins/heat

F = number of heats per year

2000 lbs = 2000 lbs per ton

No. 2 ladle arc furnace (fugitive emissions):

$$E = A*B*(1-99\%)$$

where:

E = No. 2 ladle arc furnace fugitive emissions, in lbs/hr

A = uncontrolled mass emission rate, 0.2476 lb of PE/ton of steel produced (calculated emission factor by company using material balance calculation)

B = yearly production rate of steel, in tons/yr

99% = estimated capture efficiency

## V. Testing Requirements (continued)

No. 2 LMF alloy handling (fugitive emissions):  
 $E = A * B * (1 - 99\%)$

where:

E = No. 2 LMF alloy handling fugitive emissions, in lb/hr

A = uncontrolled mass emission rate, 0.1414 lb of PE/ton of steel produced (calculated emission factor by company)

B = yearly production rate of steel, tons/yr

99% = estimated capture efficiency

No. 2 LMF alloy unloading (fugitive emissions):

$E = A * (1 - 99\%) * B / 2000 \text{ lbs}$

where:

E = No. 2 LMF alloy unloading fugitive emissions, in lb/hr

A = uncontrolled mass emission rate, 27 lbs of PE/hr (calculated emission rate by company)

B = hours of operation per year

99% = estimated capture efficiency

2000 lbs = 2000 lbs/ton

The calculated stack and fugitive particulate emissions from each equation shall then be added to determine the total particulate emissions, in tons/yr, from this emissions unit.

## V. Testing Requirements (continued)

### 1.f Emission Limitations:

5.43 lbs of PM10 per hour (stack and fugitive emission limits)

Applicable Compliance Method:

Compliance shall be determined by using the following equations:

No. 2 ladle arc furnace (stack emissions):

$$E = (A) \cdot (B) \cdot (1/C) \cdot (D) \cdot (F) / (G) \cdot 100\%$$

where:

E = No. 2 ladle arc furnace PM10 emissions, in lbs/hr

A = most recent stack emission test, in gr/dscf

B = recorded maximum flow rate of baghouse from most recent stack test, in dscfm

C = 7,000 grains per pound

D = duration of operation, 55 mins/heat

F = number of heats per hour

100% = 100% of PE is PM10 (company's estimation)

No. 2 LMF alloy handling (stack emissions):

$$E = (A) \cdot (B) \cdot (1/C) \cdot (D) \cdot 2 \cdot 100\%$$

where:

E = alloy handling particulate emissions, in lbs/hr

A = most recent stack emission test, in gr/dscf

B = recorded maximum flow rate of baghouse from most recent stack test, in dscfm

C = 7,000 grains per pound

D = 30 minutes per heat

2 = number of heats per hour

100% = 100% of PE is PM10 (company's estimation)

No. 2 LMF alloy unloading (stack emissions):

$$E = (A) \cdot (B) \cdot (1/C) \cdot (D) \cdot (F) \cdot 100\%$$

where:

E = alloy unloading particulate emissions, in lbs/hr

A = most recent stack emission test, in gr/dscf

B = recorded maximum flow rate of baghouse from most recent stack test, in dscfm

C = 7,000 grains per pound

D = 1.1 minutes per heat

F = number of heats per hour

100% = 100% of PE is PM10 (company's estimation)

No. 2 ladle arc furnace (fugitive emissions):

$$E = A \cdot B \cdot (1-99\%) \cdot 58\%$$

where:

E = No. 2 ladle arc furnace fugitive emissions, in lbs/hr

A = uncontrolled mass emission rate, 0.2476 lb of PE/ton of steel produced (calculated emission factor by company using material balance calculation)

B = hourly production rate of steel, in tons/hr

99% = estimated capture efficiency

58% = 58% of PE is PM10 (company's estimation)

## V. Testing Requirements (continued)

No. 2 LMF alloy handling (fugitive emissions):

$$E = A * B * (1 - 99\%) * 50\%$$

where:

E = No. 2 LMF alloy handling fugitive emissions, in lb/hr

A = uncontrolled mass emission rate, 0.1414 lb of PE/ton of steel produced (calculated emission factor by company)

B = hourly production rate of steel, in tons/hr

99% = estimated capture efficiency

50% = 50% of PE is PM10 (company's estimation)

No. 2 LMF alloy unloading (fugitive emissions):

$$E = A * (1 - 99\%) * 50\%$$

where:

E = No. 2 LMF alloy unloading fugitive emissions, in lb/hr

A = uncontrolled mass emission rate, 27 lbs of PE/hr (calculated emission rate by company)

99% = estimated capture efficiency

50% = 50% of PE is PM10 (company's estimation)

The calculated stack and fugitive PM10 emissions from each equation shall then be added to determine the total PM10 emissions, in lbs/hr, from this emissions unit.

## V. Testing Requirements (continued)

### 1.g Emission Limitations:

6.42 tons of PM10 per year (stack and fugitive emission limits)

Applicable Compliance Method:

Compliance shall be determined by using the following equations:

No. 2 ladle arc furnace (stack emissions):

$$E = (A)*(B)*(1/C)*(D)*(F) / 2000 \text{ lbs} * 100\%$$

where:

E = No. 2 ladle arc furnace particulate emissions, in lbs/hr

A = most recent stack emission test, in gr/dscf

B = recorded maximum flow rate of baghouse from most recent stack test, in dscfm

C = 7,000 grains per pound

D = duration of operation, 55 mins/heat

F = number of heats per year

2000 lbs = 2000 lbs/ton

100% = 100% of PE is PM10 (company's estimation)

No. 2 LMF alloy handling (stack emissions):

$$E = (A)*(B)*(1/C)*(D)*(F) / 2000 \text{ lbs} * 100\%$$

where:

E = alloy handling particulate emissions, in lbs/hr

A = most recent stack emission test, in gr/dscf

B = recorded maximum flow rate of baghouse from most recent stack test, in dscfm

C = 7,000 grains per pound

D = duration of operation, 30 mins/heat

F = number of heats per year

2000 lbs = 2000 lbs per ton

100% = 100% of PE is PM10 (company's estimation)

No. 2 LMF alloy unloading (stack emissions):

$$E = (A)*(B)*(1/C)*(D)*(F) / 2000 \text{ lbs} * 100\%$$

where:

E = alloy unloading particulate emissions, in lbs/hr

A = most recent stack emission test, in gr/dscf

B = recorded maximum flow rate of baghouse from most recent stack test, in dscfm

C = 7,000 grains per pound

D = duration of operation, 1.1 mins/heat

F = number of heats per year

2000 lbs = 2000 lbs per ton

100% = 100% of PE is PM10 (company's estimation)

## V. Testing Requirements (continued)

No. 2 ladle arc furnace (fugitive emissions):

$$E = A * B * (1 - 99\%) * 58\%$$

where:

E = No. 2 ladle arc furnace fugitive emissions, in lbs/hr

A = uncontrolled mass emission rate, 0.2476 lb of PE/ton of steel produced (calculated emission factor by company using material balance calculation)

B = yearly production rate of steel, in tons/yr

99% = estimated capture efficiency

58% = 50% of PE is PM10 (company's estimation)

No. 2 LMF alloy handling (fugitive emissions):

$$E = A * B * (1 - 99\%) * 50\%$$

where:

E = No. 2 LMF alloy handling fugitive emissions, in lb/hr

A = uncontrolled mass emission rate, 0.1414 lb of PE/ton of steel produced (calculated emission factor by company)

B = yearly production rate of steel, tons/yr

99% = estimated capture efficiency

50% = 50% of PE is PM10 (company's estimation)

No. 2 LMF alloy unloading (fugitive emissions):

$$E = A * (1 - 99\%) * B / 2000 \text{ lbs} * 50\%$$

where:

E = No. 2 LMF alloy unloading fugitive emissions, in lb/hr

A = uncontrolled mass emission rate, 27 lbs of PE/hr (calculated emission rate by company)

B = hours of operation per year

99% = estimated capture efficiency

2000 lbs = 2000 lbs/ton

50% = 50% of PE is PM10 (company's estimation)

The calculated stack and fugitive PM10 emissions from each equation shall then be added to determine the total PM10 emissions, in tons/yr, from this emissions unit.

## V. Testing Requirements (continued)

### 1.h Emission Limitations:

0.577 lb of lead per hour (stack emission only)

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

No. 2 ladle arc furnace (stack emissions):

$$E = (A)*(B)*(1/C) * 60$$

where:

E = No. 2 ladle arc furnace particulate emissions, in lbs/hr

A = lead emission factor, 0.002405 lb/ton (company's measurement)

B = maximum heat weight, 220 tons/heat

C = duration of operation, 55 mins/heat

60 = number of minutes in an hour

If required, emission tests shall be conducted in accordance with the test methods and procedures specified in Method 29 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity.

### 1.i Emission Limitations:

0.397 ton of lead per year

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = A*B*C / 2000 \text{ lbs}$$

where:

E = No. 2 ladle arc furnace lead emissions, in tons/hr

A = lead emission factor, 0.002405 lb/ton (company's measurement)

B = maximum weight per heat, 220 tons/heat

C = number of heats per year

2000 lbs = 2000 lbs/ton

D = hours of operation per year

### 1.j Emission Limitation:

Visible fugitive particulate emissions during the No. 2 LMF operations shall not exceed 5% opacity as a 6-minute average.

Applicable Compliance Method:

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

## **V. Testing Requirements (continued)**

### **1.k Emission Limitation:**

Visible fugitive particulate emissions from the No. 2 ladle arc furnace shall not exceed 5% opacity as a 6-minute average.

Applicable Compliance Method:

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

### **1.l Emission Limitation:**

Visible particulate emissions from the No. 2 ladle arc furnace baghouse stack shall not exceed 5% opacity as a 6-minute average.

Applicable Compliance Method:

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

### **1.m Emission Limitation:**

Visible particulate emissions from the No. 2 LMF alloy handling baghouse stack shall not exceed 5% opacity as a 6-minute average.

Applicable Compliance Method:

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

### **1.n Emission Limitation:**

Visible particulate emissions from the No. 2 LMF alloy unloading baghouse stack shall not exceed 5% opacity as a 6-minute average.

Applicable Compliance Method:

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

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Bloom Reheat Furnace (P081)

**Activity Description:** Reheat blooms for rolling

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas fired Bloom reheat furnace with maximum heat input capacity of 421.6 MMBtu per hour	OAC rule 3745-31-05(A)(3) PTI No. 02-7768	NOx: 0.132 lb/MMBtu See Section A.I.2.d. below.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-11, OAC rule 3745-18-53(D)(4), OAC rule 3745-21-08, and OAC rule 3745-23-06.
	OAC rule 3745-17-11	See Section A.I.2.a. below.
	OAC rule 3745-17-07(A)(1)	See Section A.I.2.b. below.
	OAC rule 3745-18-53(D)(4)	SO <sub>2</sub> : 1.98 lbs per MMBtu of actual heat input
	OAC rule 3745-21-08	See Section A.I.2.c. below.
	OAC rule 3745-23-06	See Section A.I.2.c. below.

##### 2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.
- 2.b This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- 2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in PTI No. 02-7768.

## 2. Additional Terms and Conditions (continued)

- 2.d The permittee shall employ low NO<sub>x</sub> burners and shall operate these burners to optimize the reduction of emissions of nitrogen oxides.

## II. Operational Restrictions

1. The maximum annual natural gas fuel usage for this emissions unit shall not exceed 1864.08 MMCF, based upon a rolling, 365-day summation of natural gas fuel usages.
2. The permittee shall burn only natural gas as fuel in this emissions unit.

## III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain daily records of the natural gas fuel usage for this emissions unit.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit quarterly reports to Ohio EPA, Northeast District Office that include the daily usage of natural gas and each rolling, 365-day summation of natural gas usage for this emissions unit. The quarterly reports shall be submitted by January 31, April 31, July 31, and October 31 of each year and shall cover the previous calendar quarters.

## V. Testing Requirements

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

1.a Emission Limitation:

0.132 pound of nitrogen oxides per MMBtu

Applicable Compliance Method:

Within 3 months after the issuance of this permit and within 6 months prior to the expiration of this permit, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for oxides of nitrogen. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 7 or 7E of 40 CFR Part 60, Appendix A while the Bloom Reheat furnace is operating at maximum capacity. The gas firing burners of the Bloom Reheat furnace shall be operated at the highest firing condition rate during compliance testing to determine the NO<sub>x</sub> emission rate in lb/MMBtu.

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.

**V. Testing Requirements (continued)**

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Vacuum Degasser (P082)

**Activity Description:** Vacuum Degasser - additional steel processing and refinements to achieve desired grades

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Vacuum degassing process, including flux and alloy additions, argon bubbling, and a snorkel-type vacuum degasser, equipped with a vacuum ejector, a condenser system, and a natural gas fired flare	OAC rule 3745-31-05(A)(3) PTI No. 02-7768	See Sections A.I.2.a. and b. below.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B)(1), OAC rule 3745-17-08(B), and OAC rule 3745-17-11.
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(B)(1)	Visible fugitive particulate emissions shall not exceed 20% opacity as a three-minute average.
	OAC rule 3745-17-08(B)	See Section A.I.2.c. below.
	OAC rule 3745-17-11	PE: 5.14 lbs per hour

##### 2. Additional Terms and Conditions

- 2.a The carbon monoxide flare shall be maintained and operated to achieve a minimum 98% (by weight) reduction of carbon monoxide emissions during the operation of this emissions unit.
- 2.b There shall be no objectable odors in the exhaust gases and visible emissions shall not exceed 5% opacity as a six-minute average from the flare stack.
- 2.c The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the use of a vacuum snorkel system over the emissions unit to seal the exposed molten-steel surface from air, and venting of the emissions to the natural gas fired flare system.

Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## **II. Operational Restrictions**

1. A pilot flame shall be maintained at all times in the flare's pilot light burner.
2. The maximum annual production rate for this emissions unit shall not exceed 1,000,000 tons, based upon a rolling, 365-day summation of the production rates.
3. The permittee shall ensure that the steam ejectors generate sufficient steam within the vacuum degasser system to provide the desired vacuum and ventilation rate for the CO emissions.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain a device to continuously monitor the pilot flame when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall record each day all periods during which there was no pilot flame.

2. The permittee shall maintain daily records of the following information:
  - a. The production rate for each day.
  - b. The rolling, 365-day summation of the production rates.
3. The permittee shall record each day all periods during which the steam ejectors were not functioning.

## **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods during which the pilot flame was not functioning properly. The reports shall include the date, time, and duration of each such period.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day production rate limitation.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the steam ejectors did not produce sufficient steam within the vacuum degasser system to properly ventilate the carbon monoxide emissions.
4. The permittee shall submit the required deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

## **V. Testing Requirements**

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

## V. Testing Requirements (continued)

### 1.a Emission Limitation:

98% (by weight) reduction of carbon monoxide

Applicable Compliance Method:

Within 3 months after the issuance of this permit and within 6 months prior to the expiration of this permit, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the required percent by weight reduction of carbon monoxide. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 10 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity.

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

### 1.b Emission Limitation:

5.14 lbs/hr of PE

Applicable Compliance Method:

Within 3 months after the issuance of this permit and within 6 months prior to the expiration of this permit, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the required percent by weight reduction of carbon monoxide. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 10 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity.

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.

## **V. Testing Requirements (continued)**

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

### **1.c Emission Limitation:**

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

Applicable Compliance Method:

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

### **1.d Emission Limitation:**

Visible fugitive particulate emissions shall not exceed 20% opacity as a three-minute average.

Applicable Compliance Method:

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

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pig Iron Casting Machine (P083)

**Activity Description:** Produce iron pigs

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Pig iron casting machine, equipped with a baghouse	OAC rule 3745-31-05 (A)(3) PTI No. 02-9296	Particulate emission from the baghouse stack shall not exceed 0.010 grain of particulate emissions per dry standard cubic foot of exhaust gases.  See Sections A.I.2.a. and b. below.
	OAC rule 3745-17-07	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08.  The emission limitation specified by the rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).
	OAC rule 3745-17-08	See Section A.I.2.c. below.
	OAC rule 3745-17-11	The emission limitation specified by the rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

##### 2. Additional Terms and Conditions

- 2.a Visible particulate emissions from the baghouse stack shall not exceed five percent opacity as a six-minute average.
- 2.b Visible fugitive visible particulate emissions from the iron casting facility shall not exceed five percent opacity as a six-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.

## 2. Additional Terms and Conditions (continued)

2.c The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:

- i. the installation and use of hoods, fan, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the baghouse; and
- ii. a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

## II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 3 to 8 inches of water while the emissions unit is in operation.
2. The permittee shall restrict the production of cast pig iron to 480,000 tons per year, based upon a rolling 365-day summation.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.
2. The permittee shall maintain daily records of the cast iron production that include the production, in tons, for each day and each, 365-day period.
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 and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

## IV. 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 permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to eliminate the visible particulate and/or 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.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day cast iron production rate limitation.
4. The permittee shall submit the required quarterly deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

## V. Testing Requirements

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

- 1.a Emission Limitation:

0.010 grain of particulate emissions per dry standard cubic foot

Applicable Compliance Method:

Within 3 months after the issuance of this permit, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulate matter. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while the Pig Iron Casting Mashine is operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

- 1.b Emission Limitation:

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

Applicable Compliance Method:

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

- 1.c Emission Limitation:

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

Applicable Compliance Method:

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

Facility Name: **Republic Technologies International, LLC**  
Facility ID: **02-47-08-0229**  
Emissions Unit: **Pig Iron Casting Machine (P083)**

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 1 Ladle Preheater (P089)

**Activity Description:** Preheat steel ladles

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas fired No. 1 ladle preheater with maximum heat input capacity of 12 MMBtu per hour	OAC rule 3745-31-05(A)(3) PTI No. 02-0919	PE: 0.072 lb/hr SO <sub>2</sub> : 0.007 lb/hr NO <sub>x</sub> : 1.631 lbs/hr CO: 0.980 lb/hr VOC: 0.064 lb/hr  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B)(1), OAC rule 3745-17-08(B), OAC rule 3745-21-08, and OAC rule 3745-23-06.
	OAC rule 3745-17-07(B)(1)	See Section A.I.2.a below.
	OAC rule 3745-17-08(B)	See Section A.I.2.b. below.
	OAC rule 3745-18-06 (E)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08	See Section A.I.2.c. below.
	OAC rule 3745-23-06	See Section A.I.2.c. below.

##### 2. Additional Terms and Conditions

- Visible particulate emissions of any fugitive dust shall not exceed twenty percent opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.

## **2. Additional Terms and Conditions (continued)**

- 2.b** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).

At a minimum, the permittee's employment of RACM shall consist of the use of only natural gas as fuel for this emissions unit. No additional controls are necessary for this emissions unit to satisfy the RACM requirements specified in OAC rule 3745-17-08(B), because the particulate emissions generated by this emissions unit are due solely to the combustion of natural gas.

- 2.c** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in PTI No. 02-0919.

## **II. Operational Restrictions**

1. The permittee shall only employ natural gas as fuel to preheat the ladle.

## **III. Monitoring and/or Record Keeping Requirements**

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- the location and color of the emissions;
  - whether the emissions are representative of normal operations;
  - if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - the total duration of any visible emission incident; and
  - any corrective actions taken to eliminate the visible emissions.

## **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emission unit. Each report shall be submitted within 30 days after the deviation occurs.
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 6-month period.

## **V. Testing Requirements**

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

**V. Testing Requirements (continued)**

**1.a** Emissions Limitation:

0.072 pound of PE per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 1.9 pounds of PE per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.b** Emissions Limitation:

0.007 pound of SO<sub>2</sub> per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 0.60 pound of SO<sub>2</sub> per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.c** Emissions Limitation:

1.631 pounds of NO<sub>x</sub> per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 100 pounds of NO<sub>x</sub> per MM scf of natural gas from AP-42, Table 1.4-1 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.d** Emissions Limitation:

0.980 pound of CO per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 84 pounds of CO per MM scf of natural gas from AP-42, Table 1.4-1 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.e** Emissions Limitation:

0.064 pound of VOC per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 5.5 pounds of VOC per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

## **V. Testing Requirements (continued)**

### **1.f Emission Limitation:**

Visible fugitive particulate emissions shall not exceed 20% opacity as a three-minute average.

Applicable Compliance Method:

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

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 Ladle Preheater (P090)  
**Activity Description:** Preheat steel ladles

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas fired No. 2 ladle preheater with maximum heat input capacity of 12 MMBtu per hour	OAC rule 3745-31-05(A)(3) PTI No. 02-0919	PE: 0.072 lb/hr SO <sub>2</sub> : 0.007 lb/hr NO <sub>x</sub> : 1.631 lbs/hr CO: 0.980 lb/hr VOC: 0.064 lb/hr  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B)(1), OAC rule 3745-17-08(B), OAC rule 3745-21-08, and OAC rule 3745-23-06.
	OAC rule 3745-17-07(B)(1)	See Section A.I.2.a below.
	OAC rule 3745-17-08(B)	See Section A.I.2.b. below.
	OAC rule 3745-18-06 (E)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08	See Section A.I.2.c. below.
	OAC rule 3745-23-06	See Section A.I.2.c. below.

##### 2. Additional Terms and Conditions

- Visible particulate emissions of any fugitive dust shall not exceed twenty percent opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.

## **2. Additional Terms and Conditions (continued)**

- 2.b** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).

At a minimum, the permittee's employment of RACM shall consist of the use of only natural gas as fuel for this emissions unit. No additional controls are necessary for this emissions unit to satisfy the RACM requirements specified in OAC rule 3745-17-08(B), because the particulate emissions generated by this emissions unit are due solely to the combustion of natural gas.

- 2.c** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in PTI No. 02-0919.

## **II. Operational Restrictions**

1. The permittee shall only employ natural gas as fuel to preheat the ladle.

## **III. Monitoring and/or Record Keeping Requirements**

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

## **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emission unit. Each report shall be submitted within 30 days after the deviation occurs.
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 6-month period.

## **V. Testing Requirements**

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

**V. Testing Requirements (continued)**

**1.a** Emissions Limitation:

0.072 pound of PE per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 1.9 pounds of PE per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.b** Emissions Limitation:

0.007 pound of SO<sub>2</sub> per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 0.60 pound of SO<sub>2</sub> per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.c** Emissions Limitation:

1.631 pounds of NO<sub>x</sub> per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 100 pounds of NO<sub>x</sub> per MM scf of natural gas from AP-42, Table 1.4-1 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.d** Emissions Limitation:

0.980 pound of CO per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 84 pounds of CO per MM scf of natural gas from AP-42, Table 1.4-1 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.e** Emissions Limitation:

0.064 pound of VOC per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 5.5 pounds of VOC per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

## **V. Testing Requirements (continued)**

### **1.f Emission Limitation:**

Visible fugitive particulate emissions shall not exceed 20% opacity as a three-minute average.

Applicable Compliance Method:

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

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 Ladle Preheater (P091)

**Activity Description:** Preheat steel ladles

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas fired No. 3 ladle preheater with maximum heat input capacity of 12 MMBtu per hour	OAC rule 3745-31-05(A)(3) PTI No. 02-0919	PE: 0.072 lb/hr SO <sub>2</sub> : 0.007 lb/hr NO <sub>x</sub> : 1.631 lbs/hr CO: 0.980 lb/hr VOC: 0.064 lb/hr  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B)(1), OAC rule 3745-17-08(B), OAC rule 3745-21-08, and OAC rule 3745-23-06.
	OAC rule 3745-17-07(B)(1)	See Section A.I.2.a below.
	OAC rule 3745-17-08(B)	See Section A.I.2.b. below.
	OAC rule 3745-18-06 (E)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08	See Section A.I.2.c. below.
	OAC rule 3745-23-06	See Section A.I.2.c. below.

##### 2. Additional Terms and Conditions

- Visible particulate emissions of any fugitive dust shall not exceed twenty percent opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.

## **2. Additional Terms and Conditions (continued)**

- 2.b** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).

At a minimum, the permittee's employment of RACM shall consist of the use of only natural gas as fuel for this emissions unit. No additional controls are necessary for this emissions unit to satisfy the RACM requirements specified in OAC rule 3745-17-08(B), because the particulate emissions generated by this emissions unit are due solely to the combustion of natural gas.

- 2.c** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in PTI No. 02-0919.

## **II. Operational Restrictions**

1. The permittee shall only employ natural gas as fuel to preheat the ladle.

## **III. Monitoring and/or Record Keeping Requirements**

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- the location and color of the emissions;
  - whether the emissions are representative of normal operations;
  - if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - the total duration of any visible emission incident; and
  - any corrective actions taken to eliminate the visible emissions.

## **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emission unit. Each report shall be submitted within 30 days after the deviation occurs.
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 6-month period.

## **V. Testing Requirements**

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

**V. Testing Requirements (continued)**

**1.a** Emissions Limitation:

0.072 pound of PE per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 1.9 pounds of PE per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.b** Emissions Limitation:

0.007 pound of SO<sub>2</sub> per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 0.60 pound of SO<sub>2</sub> per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.c** Emissions Limitation:

1.631 pounds of NO<sub>x</sub> per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 100 pounds of NO<sub>x</sub> per MM scf of natural gas from AP-42, Table 1.4-1 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.d** Emissions Limitation:

0.980 pound of CO per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 84 pounds of CO per MM scf of natural gas from AP-42, Table 1.4-1 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.e** Emissions Limitation:

0.064 pound of VOC per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 5.5 pounds of VOC per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**V. Testing Requirements (continued)**

**1.f** Emission Limitation:

Visible fugitive particulate emissions shall not exceed 20% opacity as a three-minute average.

Applicable Compliance Method:

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

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 4 Ladle Preheater (P092)

**Activity Description:** Preheat steel ladles

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas fired No. 4 ladle preheater with maximum heat input capacity of 12 MMBtu per hour	OAC rule 3745-31-05(A)(3) PTI No. 02-0919	PE: 0.072 lb/hr SO <sub>2</sub> : 0.007 lb/hr NO <sub>x</sub> : 1.631 lbs/hr CO: 0.980 lb/hr VOC: 0.064 lb/hr  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B)(1), OAC rule 3745-17-08(B), OAC rule 3745-21-08, and OAC rule 3745-23-06.
	OAC rule 3745-17-07(B)(1)	See Section A.I.2.a below.
	OAC rule 3745-17-08(B)	See Section A.I.2.b. below.
	OAC rule 3745-18-06 (E)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08	See Section A.I.2.c. below.
	OAC rule 3745-23-06	See Section A.I.2.c. below.

##### 2. Additional Terms and Conditions

- Visible particulate emissions of any fugitive dust shall not exceed twenty percent opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.

## **2. Additional Terms and Conditions (continued)**

- 2.b** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).

At a minimum, the permittee's employment of RACM shall consist of the use of only natural gas as fuel for this emissions unit. No additional controls are necessary for this emissions unit to satisfy the RACM requirements specified in OAC rule 3745-17-08(B), because the particulate emissions generated by this emissions unit are due solely to the combustion of natural gas.

- 2.c** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in PTI No. 02-0919.

## **II. Operational Restrictions**

1. The permittee shall only employ natural gas as fuel to preheat the ladle.

## **III. Monitoring and/or Record Keeping Requirements**

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

## **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emission unit. Each report shall be submitted within 30 days after the deviation occurs.
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 6-month period.

## **V. Testing Requirements**

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

**V. Testing Requirements (continued)**

**1.a** Emissions Limitation:

0.072 pound of PE per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 1.9 pounds of PE per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.b** Emissions Limitation:

0.007 pound of SO<sub>2</sub> per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 0.60 pound of SO<sub>2</sub> per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.c** Emissions Limitation:

1.631 pounds of NO<sub>x</sub> per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 100 pounds of NO<sub>x</sub> per MM scf of natural gas from AP-42, Table 1.4-1 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.d** Emissions Limitation:

0.980 pound of CO per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 84 pounds of CO per MM scf of natural gas from AP-42, Table 1.4-1 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.e** Emissions Limitation:

0.064 pound of VOC per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 5.5 pounds of VOC per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**V. Testing Requirements (continued)**

**1.f** Emission Limitation:

Visible fugitive particulate emissions shall not exceed 20% opacity as a three-minute average.

Applicable Compliance Method:

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

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 5 Ladle Preheater (P093)

**Activity Description:** Preheat steel ladles

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas fired No. 5 ladle preheater with maximum heat input capacity of 12 MMBtu per hour	OAC rule 3745-31-05(A)(3) PTI No. 02-0919	PE: 0.072 lb/hr SO <sub>2</sub> : 0.007 lb/hr NO <sub>x</sub> : 1.631 lbs/hr CO: 0.980 lb/hr VOC: 0.064 lb/hr  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B)(1), OAC rule 3745-17-08(B), OAC rule 3745-21-08, and OAC rule 3745-23-06.
	OAC rule 3745-17-07(B)(1)	See Section A.I.2.a below.
	OAC rule 3745-17-08(B)	See Section A.I.2.b. below.
	OAC rule 3745-18-06 (E)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08	See Section A.I.2.c. below.
	OAC rule 3745-23-06	See Section A.I.2.c. below.

##### 2. Additional Terms and Conditions

- Visible particulate emissions of any fugitive dust shall not exceed twenty percent opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.

## **2. Additional Terms and Conditions (continued)**

- 2.b** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).

At a minimum, the permittee's employment of RACM shall consist of the use of only natural gas as fuel for this emissions unit. No additional controls are necessary for this emissions unit to satisfy the RACM requirements specified in OAC rule 3745-17-08(B), because the particulate emissions generated by this emissions unit are due solely to the combustion of natural gas.

- 2.c** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in PTI No. 02-0919.

## **II. Operational Restrictions**

1. The permittee shall only employ natural gas as fuel to preheat the ladle.

## **III. Monitoring and/or Record Keeping Requirements**

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- the location and color of the emissions;
  - whether the emissions are representative of normal operations;
  - if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - the total duration of any visible emission incident; and
  - any corrective actions taken to eliminate the visible emissions.

## **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emission unit. Each report shall be submitted within 30 days after the deviation occurs.
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 6-month period.

## **V. Testing Requirements**

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

**V. Testing Requirements (continued)**

**1.a** Emissions Limitation:

0.072 pound of PE per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 1.9 pounds of PE per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.b** Emissions Limitation:

0.007 pound of SO<sub>2</sub> per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 0.60 pound of SO<sub>2</sub> per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.c** Emissions Limitation:

1.631 pounds of NO<sub>x</sub> per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 100 pounds of NO<sub>x</sub> per MM scf of natural gas from AP-42, Table 1.4-1 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.d** Emissions Limitation:

0.980 pound of CO per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 84 pounds of CO per MM scf of natural gas from AP-42, Table 1.4-1 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**1.e** Emissions Limitation:

0.064 pound of VOC per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 5.5 pounds of VOC per MM scf of natural gas from AP-42, Table 1.4-2 (July, '98 version) by 1030 Btu/cf and then multiplying by the maximum heat input of 12 MMBtu/hr.

**V. Testing Requirements (continued)**

**1.f** Emission Limitation:

Visible fugitive particulate emissions shall not exceed 20% opacity as a three-minute average.

Applicable Compliance Method:

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

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 Blast Furnace (P905)

**Activity Description:** Combine raw mats, iron ore pellets, limestone/dolomite, coke, scrap, coal, etc. to produce molten hot metal

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
No. 3 blast furnace, equipped with a venturi scrubber system to control top gas emissions and a 286,151 acfm baghouse to control emissions during casting operations.	OAC rule 3745-31-05(A)(3) PTI No. 02-5573	See sections A.I.2.a, b, c, d, and e below.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1) and OAC rule 3745-17-08(B).
	OAC rule 3745-17-07(A)(1)	See Sections A.I.2.f and g below.
	OAC rule 3745-17-07(B)(3)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	See Section A.I.2.h below.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-18-53(D)(4)	SO <sub>2</sub> emissions from the stove stacks shall not exceed 1.98 lbs per MMBtu of actual heat input. See Section A.I.2.i. below.

##### 2. Additional Terms and Conditions

- 2.a The particulate emissions from the No. 3 blast furnace stove stacks shall not exceed 0.0030 grain of particulate emissions per dry standard cubic foot of exhaust gases.
- 2.b The CO emissions from the No. 3 blast furnace stove stacks shall not exceed 0.044 grain per standard cubic foot of waste gas.

## **2. Additional Terms and Conditions (continued)**

- 2.c** The NO<sub>x</sub> emissions from the No. 3 blast furnace stove stacks shall not exceed 0.087 grain per standard cubic foot of waste gas.
- 2.d** The particulate emissions from the baghouse stack shall not exceed 0.0052 grain per dry standard cubic foot of exhaust gases.
- 2.e** Visible particulate emissions of fugitive dust from the casthouse shall not exceed 15% opacity as a six-minute rolling average. Visible emissions from the No. 3 blast furnace casthouse shall be determined according to USEPA test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standard of Performance for New Stationary Sources," except that each minute starts a new six-minute rolling average. If visible emissions are being emitted from the roof monitor and other discharge points from the building, the observer shall record the most opaque plume.

For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the casthouse. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.

- 2.f** Visible particulate emissions from the baghouse stacks shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
- 2.g** Visible particulate emissions from the stove stacks shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
- 2.h** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
  - i. the use of localized hooding over the taphole in the hearth of the furnace and the trough area, and venting of the particulate emissions to the baghouse;
  - ii. the application of gas suppression system at the trough and runners to eliminate oxygen from contact with liquid iron during casting;
  - iii. reducing the runner length by installing tilting runners to reduce surface iron oxide fume emissions;
  - iv. installation of runner covers to further reduce fugitive emissions; and
  - v. the use of a dustcatcher and venting of the blast furnace top gas to a venturi scrubber system before recycling the blast furnace top gas back to stoves and boilers as fuel.

Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

- 2.i** No monitoring, record keeping, and reporting requirements for the SO<sub>2</sub> emissions are required because, based on Table 1 of Chapter 14, Blast Furnace, Air Pollution Engineering Manual (version 1992), the SO<sub>2</sub> emissions from the blast furnace gas are well below the allowable.

## **II. Operational Restrictions**

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

The permittee may petition to the Ohio EPA, Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA, Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

## **II. Operational Restrictions (continued)**

2. The pressure drop range across the scrubber shall be maintained within the range shown during the latest emission test that demonstrated the emissions unit is in compliance. Until the emission test required by Section A.V. is conducted, however, the pressure drop across the scrubber shall be maintained according to the manufacturer's recommendation while the emissions unit is operating.
3. The scrubber water flow rate shall be continuously maintained at a value of not less than 5,000 gallons per minute at all times while the emissions unit is in operations.
4. The natural gas flame suppression system shall be employed at all times during casting operation.
5. The permittee may not produce any "merchant iron" in any of the blast furnaces at this facility. Merchant iron is the excess amount of iron produced from this emissions unit that can be cast and be sold to vendors and/or charged back to the BOP shop.

## **III. Monitoring and/or Record Keeping Requirements**

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

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

- a. The pressure drop across the scrubber, in inches of water, on a once per shift basis.
  - b. The scrubber water flow rate, in gallons per minute, on a once per shift basis.
  - c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
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.
  3. The permittee shall maintain monthly records of the total iron production from this emissions unit.

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

4. Visible emission readings shall be performed and recorded for the No.3 blast furnace casthouse operations to monitor compliance with the visible emission requirements specified in these Special Terms and Conditions. The readings shall be performed for three consecutive daylight casts each week on a random basis. The visible emission readings shall be performed by certified smoke readers only. These compliance demonstrations shall conform with the following procedures:
- a. During each compliance demonstration case, the No. 3 blast furnace and casthouse control system shall be operated in a manner representative of normal operating conditions.
  - b. The permittee shall provide at least 2 visible emission observers. One observer ( the "outside observer") shall observe and record the visible emissions that exit the casthouse. At least one observer (the "inside observer") shall be situated inside the casthouse positioned with a clear view of all casthouse operations, consistent with the safety of the observer(s). Any outside observers shall be certified in accordance with Method 9.
  - c. The observation of each cast shall begin with the opening of taphole and conclude when the hot metal or slag ceases to flow.
  - d. The inside observer(s) shall record, at a minimum, the following:
    - i. the start and finish times of the taphole drilling;
    - ii. the start and finish times of any oxygen lancing operations;
    - iii. the start and finish times of any casthouse operations that may affect the quantity of emissions that escape the casthouse;
    - iv. the qualitative magnitude of uncaptured emissions from specified casthouse locations recorded at five-minute intervals during the cast (e.g., light, medium, heavy) (locations - iron notch, trough, skimmer, etc.);

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

- v. descriptions of out-of-the-ordinary occurrences including emission capture system problems that result in abnormal casthouse fugitive emissions;
  - vi. operating parameters such as:
    - (a) drill size;
    - (b) tons of iron cast;
    - (c) sulfur content of the iron;
    - (d) furnace hot blast pressure; and
    - (e) iron temperature; and
  - vii. the start and finish times of the taphole plugging.
- e. The outside observer shall make and record opacity readings at fifteen-second intervals. Readings shall be made of emissions from the roof monitor or any other discharge point from the building or between the casthouse and blast furnace. The highest opacity reading shall be recorded.
- f. For each cast, overlapping six-minute opacity averages (averages of 24 consecutive opacity readings, moving at one minute intervals) shall be determined. The data set for each cast shall consist of all six-minute averages so determined. Opacity readings immediately preceding or following one or more interferences shall be deemed to be consecutive.
- g. The Ohio EPA, Northeast District Office shall be notified at least two days prior to each scheduled demonstration.
- h. In the event that a violation of the applicable visible emission limitation is determined during any demonstration, the Ohio EPA, Northeast District Office shall be immediately notified.
- i. The compiled data shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA, Northeast District Office during normal business hours.
5. The permittee shall maintain daily records of the following information:
- a. The amount of natural gas used for the flame suppression system for each day.
  - b. The number of casts performed each day.
6. For each day during which the permittee produces any "merchant iron" from this emissions unit, the permittee shall maintain records of each occurrences.
7. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack and stove 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 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.

#### **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.
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 in section A.II.1, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly deviation (excursion) reports that identify any day when the fume suppression system was not operating while the emissions unit was in operation.
4. The permittee shall submit quarterly deviation (excursion) reports that identify each day when any "mechant iron" was produced from this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
5. The permittee shall submit quarterly reports to the Ohio EPA, Northeast District Office which include the monthly records of blast furnace iron production during the previous three calender months. The reports shall be submitted by January 31, April 31, July 31, and October 31 of each year.
6. The permittee shall submit quarterly reports to the Ohio EPA, Northeast District Office which consist of the daily records of the amount of natural gas used for the flame suppression system and the number of casts performed during the previous three calender months. The reports shall be submitted by January 31, April 31, July 31, and October 31 of each year.
7. The permittee shall submit the required visible particulate emission readings performed on the No. 3 blast furnace casthouse operations. The reports shall be submitted quarterly by January 15, April 15, July 15, and October 15 of each year, and shall cover the previous calendar quarter.
8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack and/or stove stacks 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.
9. On a quarterly basis, the permittee shall submit to the Ohio EPA, Northeast District Office a report of the results of the visible emission readings performed for the No. 3 blast furnace casthouse during the previous calendar quarter. These reports shall be submitted by January 15, April 15, July 15, and October 15 of each year.
10. The permittee shall submit the required quarterly deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

#### **V. Testing Requirements**

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

## **V. Testing Requirements (continued)**

### **1.a Emission Limitations:**

0.003 grain of particulate emissions per dry standard cubic foot of exhaust gases from the stove stacks.

Applicable Compliance Method:

Within 3 months after the issuance of this permit and within 6 months prior to the expiration of this permit, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulates. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while this emissions unit is operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9. See Section A.V.I.i. below.

### **1.b Emission Limitations:**

CO emissions from No. 3 blast furnace stove stacks shall not exceed 0.044 grain per standard cubic foot of waste gas.

Applicable Compliance Method:

Within 3 months after the issuance of this permit and annually thereafter, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for carbon monoxide. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 10 of 40 CFR Part 60, Appendix A while this emissions unit is operating at maximum capacity. See Section A.V.I.i. of this permit.

### **1.c Emission Limitations:**

NO<sub>x</sub> emissions from No. 3 blast furnace stove stacks shall not exceed 0.087 grain per standard cubic foot of waste gas.

Applicable Compliance Method:

Within 3 months after the issuance of this permit and annually thereafter, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for oxides of nitrogen. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 7 or 7E of 40 CFR Part 60, Appendix A while this emissions unit is operating at maximum capacity. See Section A.V.I.i. below.

### **1.d Emission Limitations:**

0.0052 grain of particulate emissions per dry standard cubic foot of exhaust gases (baghouse stack).

Applicable Compliance Method:

Within 3 months after the issuance of this permit and within 6 months prior to the expiration of this permit, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulates. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 5D of 40 CFR Part 60, Appendix A while this emissions unit is operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9. See Section A.V.I.i. below.

**V. Testing Requirements (continued)**

**1.e** Emission Limitations:

SO<sub>2</sub> emissions from the No. 3 blast furnace stove stacks shall not exceed 1.98 lbs per MMBtu of actual heat input.

Applicable Compliance Method:

Within 3 months after the issuance of this permit and annually thereafter, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for oxides of sulfur dioxide. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 6 of 40 CFR Part 60, Appendix A while this emissions unit is operating at maximum capacity. See Section A.V.I.i. below.

**1.f** Emission Limitation:

Visible fugitive particulate emissions shall not exceed 15% opacity as a three-minute rolling average basis.

Applicable Compliance Method:

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

**1.g** Emission Limitation:

Visible emissions from the casthouse baghouse stack shall not exceed 20% opacity as a 6-minute average

Applicable Compliance Method:

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

**1.h** Emission Limitation:

Visible emissions from the stove stacks shall not exceed 20% opacity as a 6-minute average

Applicable Compliance Method:

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

## **V. Testing Requirements (continued)**

- 1.i 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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

## **VI. Miscellaneous Requirements**

1. Pursuant to the terms of the Consent Decree, Civil Action No. 1:92CV1928 (First Amendment to Modify Consent Decree), the permittee shall apply for a permit-to-install modification on the No. 3 blast furnace within 30 days of U.S. EPA's approval of the revised No. 3 blast furnace Netting Analysis. The permit-to-install application shall include a proposed CO limitation for the No. 3 blast furnace based upon the CO emission level used in the revised Netting Analysis.

Such permit-to-install modification is required on the No. 3 blast furnace because the existing CO limit for this emissions unit was based on the combustion of blast furnace gas only. It was determined, however, that the CO emissions from the stove stacks were a combination of combusted blast furnace gas and a raw blast furnace gas leaking into the combustion stack.

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 4 Blast Furnace (P907)

**Activity Description:** Combine raw mats, iron ore pellets, limestone/dolomite, coke, scrap, etc. to produce molten hot metal

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
No. 4 blast furnace, equipped with a venturi scrubber system to control top gas emissions and a natural gas flame suppression system to control emissions during casting operations.	OAC rule 3745-17-07(A)(1)	See Section A.I.2.a. below.
	OAC rule 3745-17-07(B)(3)	See Section A.I.2.b. below.
	OAC rule 3745-17-08(B)	See Section A.I.2.c. below.
	OAC rule 3745-17-11	PE: 54.84 pounds per hour
	OAC rule 3745-18-53(D)(4)	SO2 emissions from stove stack shall not exceed 1.98 lbs per MMBtu of actual heat input.

##### 2. Additional Terms and Conditions

- 2.a Visible particulate emissions from the stove stacks shall not exceed 20% opacity as a 6-minute average.
- 2.b Visible fugitive particulate emissions from the blast furnace casthouse shall not exceed 20% opacity as a six-minute average. Visible emissions from the No. 4 blast furnace casthouse shall be determined according to USEPA test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standard of Performance for New Stationary Sources," except that each minute starts a new six-minute rolling average. If visible emissions are being emitted from the roof monitor and other discharge points from the building, the observer shall record the most opaque plume.

For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the casthouse. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.

## **2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:

- i. the application of gas suppression system at the trough and runners to eliminate oxygen from contact with liquid iron during casting;
- ii. reducing the runner length to reduce surface iron oxide fume emissions; and
- iii. the use of a dustcatcher and venting of the blast furnace top gas to a venturi scrubber system before recycling the blast furnace top gas back to stoves and boilers as fuel.

Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

**2.d** No monitoring, record keeping, and reporting requirements for the SO<sub>2</sub> emissions are required because, based on Table 1 of Chapter 14, Blast Furnace, Air Pollution Engineering Manual (version 1992), the SO<sub>2</sub> emissions from the blast furnace gas are well below the allowable.

## **II. Operational Restrictions**

1. The pressure drop across the scrubber shall be continuously maintained within the range of 70 to 75 inches of water at all times while the emissions unit is in operation.
2. The scrubber water flow rate shall be continuously maintained at a value of not less than 7,000 gallons per minute at all times while the emissions unit is in operation.
3. The natural gas flame suppression system shall be employed at all times during casting operations.
4. The permittee may not produce any "merchant iron" in any of the blast furnaces at this facility. Merchant iron is the excess amount of iron produced from this emissions unit that can be cast and be sold to vendors and/or charged back to the BOP shop.

## **III. Monitoring and/or Record Keeping Requirements**

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

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

- a. The pressure drop across the scrubber, in inches of water, on a once per shift basis.
  - b. The scrubber water flow rate, in gallons per minute, on a once per shift basis.
  - c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
2. The permittee shall maintain monthly records of the total iron production from this emissions unit.

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

3. Visible emission readings shall be performed and recorded for the No.4 blast furnace casthouse operations to monitor compliance with the visible emission requirements specified in these Special Terms and Conditions. The readings shall be performed for three consecutive daylight casts each calendar month on a random basis. The visible emission readings shall be performed by certified smoke readers only. These compliance demonstrations shall conform with the following procedures:
- a. During each compliance demonstration case, the No. 4 blast furnace and casthouse control system shall be operated in a manner representative of normal operating conditions.
  - b. The permittee shall provide at least 2 visible emission observers. One observer ( the "outside observer") shall observe and record the visible emissions that exit the casthouse. At least one observer (the "inside observer") shall be situated inside the casthouse positioned with a clear view of all casthouse operations, consistent with the safety of the observer(s). Any outside observers shall be certified in accordance with Method 9.
  - c. The observation of each cast shall begin with the opening of taphole and conclude when the hot metal or slag ceases to flow.
  - d. The inside observer(s) shall record, at a minimum, the following:
    - i. the start and finish times of the taphole drilling;
    - ii. the start and finish times of any oxygen lancing operations;
    - iii. the start and finish times of any casthouse operations that may affect the quantity of emissions that escape the casthouse;
    - iv. the qualitative magnitude of uncaptured emissions from specified casthouse locations recorded at five-minute intervals during the cast (e.g., light, medium, heavy) (locations - iron notch, trough, skimmer, etc.);

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

- v. descriptions of out-of-the-ordinary occurrences including emission capture system problems that result in abnormal casthouse fugitive emissions;
- vi. operating parameters such as:
  - (a) drill size;
  - (b) tons of iron cast;
  - (c) sulfur content of the iron;
  - (d) furnace hot blast pressure; and
  - (e) iron temperature; and
- vii. the start and finish times of the taphole plugging.
- e. The outside observer shall make and record opacity readings at fifteen-second intervals. Readings shall be made of emissions from the roof monitor or any other discharge point from the building or between the casthouse and blast furnace. The highest opacity reading shall be recorded.
- f. For each cast, overlapping six-minute opacity averages (averages of 24 consecutive opacity readings, moving at one minute intervals) shall be determined. The data set for each cast shall consist of all six-minute averages so determined. Opacity readings immediately preceding or following one or more interferences shall be deemed to be consecutive.
- g. The Ohio EPA, Northeast District Office shall be notified at least two days prior to each scheduled demonstration.
- h. In the event that a violation of the applicable visible emission limitation is determined during any demonstration, the Ohio EPA, Northeast District Office shall be immediately notified.
- i. The compiled data shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA, Northeast District Office during normal business hours.

- 4. The permittee shall maintain daily records of the following information:
  - a. The amount of natural gas used for the flame suppression system for each day.
  - b. The number of casts performed each day.
- 5. For each day during which the permittee produces any "merchant iron" from this emissions unit, the permittee shall maintain records of each occurrences.
- 6. 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 stove 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 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.

#### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.
2. The permittee shall submit quarterly deviation (excursion) reports that identify any day when the fume suppression system was not operating while the emissions unit was in operation.
3. The permittee shall submit quarterly deviation (excursion) reports that identify each day when any "mechant iron" was produced from this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
4. The permittee shall submit quarterly reports to the Ohio EPA, Northeast District Office which include of the monthly records of blast furnace iron production during the previous three calender months. The reports shall be submitted by January 31, April 31, July 31, and October 31 of each year.
5. The permittee shall submit quarterly reports to the Ohio EPA, Northeast District Office which consist the daily records of the amount of natural gas used for the flame suppression system and the number of casts performed during the previous three calender months. The reports shall be submitted by January 31, April 31, July 31, and October 31 of each year.
6. The permittee shall submit the required visible particulate emission readings performed for the No. 4 blast furnace casthouse operations. The reports shall be submitted quarterly by January 15, April 15, July 15, and October 15 of each year, and shall cover the previous calendar quarter.
8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stove stacks 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.
9. The permittee shall submit the required quarterly deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

#### V. Testing Requirements

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

**1.a** Emission Limitations:

54.84 lbs of particulate emissions per hour from the stove stacks

Applicable Compliance Method:

Within 3 months after the issuance of this permit and annually thereafter, the permittee shall conduct or have conducted an emission test for this emission unit in order to demonstrate compliance with the allowable mass emission rate for particulate. The compliance test shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity. A one time inlet stack emission test is also required during the initial compliance test to determine the uncontrolled mass emission rate for particulate matter for purposes of determining the applicability of Figure II of OAC rule 3745-17-11. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9. See Section A.V.I.e. below.

## V. Testing Requirements (continued)

### 1.b Emission Limitations:

SO<sub>2</sub> emissions from the stove stacks shall not exceed 1.98 lbs per MMBtu of actual heat input.

Applicable Compliance Method:

Within 3 months after the issuance of this permit and annually thereafter, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for oxides of sulfur dioxide. The compliance tests shall be conducted in accordance with the test methods and procedures specified in Method 6 of 40 CFR Part 60, Appendix A while this emissions unit is operating at maximum capacity. See Section A.V.I.e. below.

### 1.c Emission Limitation:

Visible emissions from the No. 4 blast furnace stove stacks shall not exceed 20% opacity as a 6-minute average

Applicable Compliance Method:

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

### 1.d Emission Limitation:

Visible fugitive particulate emissions from the No. 4 blast furnace casthouse shall not exceed 20% opacity as a six-minute average.

Applicable Compliance Method:

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

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

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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

## VI. Miscellaneous Requirements

**None**

Facility Name: **Republic Technologies International, LLC**  
Facility ID: **02-47-08-0229**  
Emissions Unit: **No. 4 Blast Furnace (P907)**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** BOP "L" Vessel (P908)  
**Activity Description:** Refining molten pig iron by oxidizing impurities

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
BOP "L" vessel equipped with a wet scrubber, a flare system, and a 416,000 acfm positive pressure baghouse as a secondary control system (secondary roof collection system)	OAC rule 3745-17-07(A)(1)	See Section A.I.2.a. below.
	OAC rule 3745-17-07(B)(1)	See Section A.I.2.b. below.
	OAC rule 3745-17-08(B)	See Section A.I.2.c. below.
	OAC rule 3745-17-11	PE: 7.86 lbs per hour (based on Figure II)

##### 2. Additional Terms and Conditions

- 2.a Visible particulate emission from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
- 2.b Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.
- 2.c The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
  - i. the installation and use of hoods, fan, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the scrubber system and to the flare stack; and
  - ii. a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.
- 2.d The secondary control equipment (baghouse) employed shall achieve an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions from the exhaust stack(s), whichever is less stringent.

## II. Operational Restrictions

1. The pressure drop across the scrubber shall be continuously maintained at a value of not less than 65 inches of water at all times while the emissions unit is in operation.
2. The scrubber water flow rate shall be continuously maintained at a value of not less than 150 gallons per minute at all times while the emissions unit is in operation.
3. A pilot flame shall be maintained at all times in the flare's pilot light burner.
4. The pressure drop across the secondary control baghouse shall be maintained within the range of 3 to 8 inches of water while the emissions unit is in operation.

The permittee may petition to the Ohio EPA Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

## III. Monitoring and/or Record Keeping Requirements

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

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

- a. The pressure drop across the scrubber, in inches of water, on a once per shift basis.
  - b. The scrubber water flow rate, in gallons per minute, on a once per shift basis.
  - c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
2. The permittee shall properly operate and maintain a device to continuously monitor the pilot flame when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall record each day all periods during which there was no pilot flame.

3. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
4. Visible particulate emission readings using USEPA test Method 9 shall be performed and recorded on the roof monitor while this emissions unit is in operation to monitor compliance with the visible emission requirements specified in these Special Terms and Conditions. The readings shall be performed for each week on a random basis. The visible emission readings shall be performed by certified smoke readers only.
5. Visible particulate emission readings for the roof monitor shall be performed and recorded during the BOP "L" vessel operations to monitor compliance with the visible emission requirements specified in these Special Terms and Conditions. The opacity readings shall be performed in accordance with USEPA Method 9 and shall be taken each week by a certified smoke reader only.

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

6. 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.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods during which the pilot flame was not functioning properly. The reports shall include the date, time, and duration of each such period.
3. 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, as well as the corrective actions that were taken to achieve compliance.
4. The permittee shall submit quarterly summaries of the required visible particulate emission readings performed for the roof monitor during the BOP "L" vessel operations. The reports shall be submitted quarterly by January 15, April 15, July 15, and October 15 of each year, and shall cover the previous calendar quarter.
5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse 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 6-month period.
6. The permittee shall submit the required quarterly deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

### V. Testing Requirements

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

- 1.a Emission Limitation:

Visible fugitive particulate emissions shall not exceed 20% opacity as a three-minute average.

Applicable Compliance

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

## V. Testing Requirements (continued)

### 1.b Emission Limitation:

0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

Within 3 months after the issuance of this permit and within 3 months prior to the expiration of this permit, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulates. The compliance test shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while the BOP "L" vessel, BOP "N" vessel, and the mixers and direct pouring stations are operating at maximum capacities. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

### 1.c Emission Limitation:

7.86 lbs of PE per hour

Applicable Compliance Method:

Within 3 months after the issuance of this permit and within 3 months prior to the expiration of this permit, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulates. The compliance test shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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.

## **V. Testing Requirements (continued)**

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

### **1.d Emission Limitation:**

Visible particulate emissions from the venturi scrubber stack shall not exceed 20% opacity as a 6-minute average.

Applicable Compliance Method:

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

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** BOP "N" Vessel (P909)  
**Activity Description:** Refining molten pig iron by oxidizing impurities

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
BOP "N" vessel equipped with a wet scrubber, a flare system, and a 416,000 acfm positive pressure baghouse as a secondary control system (secondary roof collection system)	OAC rule 3745-17-07(A)(1)	See Section A.I.2.a. below.
	OAC rule 3745-17-07(B)(1)	See Section A.I.2.b. below.
	OAC rule 3745-17-08(B)	See Section A.I.2.c. below.
	OAC rule 3745-17-11	PE: 7.86 lbs per hour (based on Figure II)

##### 2. Additional Terms and Conditions

- 2.a Visible particulate emission from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
- 2.b Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.
- 2.c The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
  - i. the installation and use of hoods, fan, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the scrubber system and to the flare stack; and
  - ii. a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.
- 2.d The secondary control equipment (baghouse) employed shall achieve an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions from the exhaust stack(s), whichever is less stringent.

## II. Operational Restrictions

1. The pressure drop across the scrubber shall be continuously maintained at a value of not less than 65 inches of water at all times while the emissions unit is in operation.
2. The scrubber water flow rate shall be continuously maintained at a value of not less than 150 gallons per minute at all times while the emissions unit is in operation.
3. A pilot flame shall be maintained at all times in the flare's pilot light burner.
4. The pressure drop across the secondary control baghouse shall be maintained within the range of 3 to 8 inches of water while the emissions unit is in operation.

The permittee may petition to the Ohio EPA Northeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA Northeast District Office's satisfaction that the new pressure drop range will ensure ongoing compliance and the operating conditions upon which the pressure drop range was previously established are no longer applicable.

## III. Monitoring and/or Record Keeping Requirements

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

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

- a. The pressure drop across the scrubber, in inches of water, on a once per shift basis.
  - b. The scrubber water flow rate, in gallons per minute, on a once per shift basis.
  - c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
2. The permittee shall properly operate and maintain a device to continuously monitor the pilot flame when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall record each day all periods during which there was no pilot flame.

3. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
4. Visible particulate emission readings using USEPA test Method 9 shall be performed and recorded on the roof monitor while this emissions unit is in operation to monitor compliance with the visible emission requirements specified in these Special Terms and Conditions. The readings shall be performed for each week on a random basis. The visible emission readings shall be performed by certified smoke readers only.
5. Visible particulate emission readings for the roof monitor shall be performed and recorded during the BOP "L" vessel operations to monitor compliance with the visible emission requirements specified in these Special Terms and Conditions. The opacity readings shall be performed in accordance with USEPA Method 9 and shall be taken each week by a certified smoke reader only.

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

6. 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.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods during which the pilot flame was not functioning properly. The reports shall include the date, time, and duration of each such period.
3. 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, as well as the corrective actions that were taken to achieve compliance.
4. The permittee shall submit quarterly summaries of the required visible particulate emission readings performed for the roof monitor during the BOP "L" vessel operations. The reports shall be submitted quarterly by January 15, April 15, July 15, and October 15 of each year, and shall cover the previous calendar quarter.
5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse 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 6-month period.
6. The permittee shall submit the required quarterly deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

### V. Testing Requirements

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

- 1.a Emission Limitation:

Visible fugitive particulate emissions shall not exceed 20% opacity as a three-minute average.

Applicable Compliance

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

## V. Testing Requirements (continued)

### 1.b Emission Limitation:

0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

Within 3 months after the issuance of this permit and within 3 months prior to the expiration of this permit, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulates. The compliance test shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while the BOP "L" vessel, BOP "N" vessel, and the mixers and direct pouring stations are operating at maximum capacities. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

### 1.c Emission Limitation:

7.86 lbs of PE per hour

Applicable Compliance Method:

Within 3 months after the issuance of this permit and within 3 months prior to the expiration of this permit, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulates. The compliance test shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9.

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.

## **V. Testing Requirements (continued)**

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

### **1.d Emission Limitation:**

Visible particulate emissions from the venturi scrubber stack shall not exceed 20% opacity as a 6-minute average.

Applicable Compliance Method:

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

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** BOP Raw Material Handling (P910)  
**Activity Description:** BOP Flux storage & handling

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
BOP raw material handling operation equipped with several baghouses.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions shall not exceed 20% opacity as a six-minute average.
	OAC rule 3745-17-07(B)(8)(b)	Visible particulate emissions from any material handling operation shall not exceed 20% opacity, as a six-minute average. See Section A.1.2.a.
	OAC rule 3745-17-08(B)	See Section A.1.2.b. and c. below.
	OAC rule 3745-17-11	PE: 5.68 lbs per hour. See Section A.1.2.d. below.

##### 2. Additional Terms and Conditions

- 2.a The visible emission limitation and rule citations reflect the settlement agreement reached between Ohio EPA and the iron and steel production facilities concerning the iron and steel facilities' appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule containing the 20% opacity limitation was adopted by the Director of Ohio EPA in December, 1997. The USEPA and the iron and steel production facilities have agreed to consider the 10% opacity limitation as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of the limitation as a revision to the Ohio SIP for particulate matter, and during the time thereafter.
- 2.b The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the use of localized hoodings over the various pieces of equipment, and venting of the particulate emissions to the baghouses.

The collection efficiencies shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the points of capture to the extent possible with good engineering design.

## **2. Additional Terms and Conditions (continued)**

**2.c** The following material handling operations are subject to OAC rules 37454-17-07(B) and 3745-17-08(B):

- i. Synthetic slag ladle addition material handling operation, equipped with a 40,000 acfm baghouse.
- ii. Synthetic slag material handling operation, equipped with a 17,500 acfm baghouse.

Each of the above-mentioned baghouses shall achieve an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions from each exhaust stack, whichever is less stringent.

**2.d** The following material handling operations for this emissions unit are subject to OAC rules 3745-17-07(A) and 3745-17-11 (for the baghouse emissions) and rules 3745-17-07(B) and 3745-17-08(B) for the fugitive dust emissions. The particulate emissions from these operations shall be vented to the designated baghouses:

- i. No. 4 flux unloading operation, equipped with a 23,000 acfm baghouse.
- ii. Flux transfer tower, equipped with a 23,000 acfm baghouse.
- iii. No. 1 flux handling operation, equipped with a 4,000 acfm baghouse.
- iv. No. 2 flux handling operation, equipped with a 4,000 acfm baghouse.
- v. No. 3 flux transfer tower, equipped with a 23,000 acfm baghouse.
- vi. east material handling operation, equipped with a 4,000 acfm baghouse.
- vii. west material handling operation, equipped with a 4,000 acfm baghouse.
- viii. No.1 flux unloading operation, equipped with a 23,000 acfm baghouse.

## **II. Operational Restrictions**

1. The pressure drop across the No. 4 flux unloading material handling baghouse shall be maintained within the range of 4.0 to 6.0 inches of water while the emissions unit is in operation.
2. The pressure drop across the flux transfer tower baghouse shall be maintained within the range of 1 to 5 inches of water while the emissions unit is in operation.
3. The pressure drop across the No.1 flux handling operation baghouse shall be maintained within the range of 2 to 4 inches of water while the emissions unit is in operation.
4. The pressure drop across the No.2 flux handling operation baghouse shall be maintained within the range of 2 to 4 inches of water while the emissions unit is in operation.
5. The pressure drop across the No.3 flux transfer tower baghouse shall be maintained within the range of 2 to 4 inches of water while the emissions unit is in operation.
6. The pressure drop across the east material handling baghouse shall be maintained within the range of 2 to 10 inches of water while the emissions unit is in operation.
7. The pressure drop across the west material handling baghouse shall be maintained within the range of 1 to 6 inches of water while the emissions unit is in operation.
8. The pressure drop across the No. 1 flux unloading operation baghouse shall be maintained within the range of 1 to 4 inches of water while the emissions unit is in operation.
9. The pressure drop across the synthetic slag ladle addition baghouse shall be maintained within the range of 2 to 7 inches of water while the emissions unit is in operation.
10. The pressure drop across the synthetic slag baghouse shall be maintained within the range of 3 to 7 inches of water while the emissions unit is in operation.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each 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 each baghouse on weekly basis.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

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 each of the baghouses serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across each baghouse did not comply with the allowable range specified above.
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.
3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouses 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.
4. The permittee shall submit the required quarterly deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

## V. Testing Requirements

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

**1.a** Emission Limitation:

Visible emissions of fugitive dust shall not exceed 20% opacity as a 6-minute average.

Applicable Compliance Method:

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

**1.b** Emission Limitation:

Visible emissions from each baghouse stack shall not exceed 20% opacity as a 6-minute average

Applicable Compliance Method:

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

**1.c** Emission Limitation:

5.68 lbs of PE hour

Applicable Compliance Method:

Within 3 months after the issuance of this permit and within 3 months prior to the expiration of this permit, the permittee shall conduct or have conducted an emission test on each of the baghouses listed in Section A.I.2.d. of this permit for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulates. The compliance test shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacities. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9. See Section A.V.1.e. of this permit.

**1.d** Emission Limitation:

0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases

Applicable Compliance Method:

Within 3 months after the issuance of this permit and within 3 months prior to the expiration of this permit, the permittee shall conduct or have conducted an emission test on each of the baghouses listed in Section A.I.2.c. of this permit for this emissions unit in order to demonstrate compliance with the allowable mass emission rates for particulate matter. The compliance test shall be conducted in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A while the emissions unit is operating at maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9. See Section A.V.1.e. of this permit.

## **V. Testing Requirements (continued)**

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

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). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

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

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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