



State of Ohio Environmental Protection Agency

Street Address:

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

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

Mailing Address:

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

05/30/03

CERTIFIED MAIL

RE: Final Title V Chapter 3745-77 permit

02-47-08-0229

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

Dear Patrick L Monnot:

Enclosed is the Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully.

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Review Appeals Commission within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. It is also requested by the Director that a copy of the appeal be served upon the Environmental Enforcement Section of the Office of the Attorney General. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street
Room 300
Columbus, Ohio 43215

If you have any questions, please contact Northeast District Office.

Very truly yours,

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

cc: Northeast District Office
File, DAPC PMU



State of Ohio Environmental Protection Agency

FINAL TITLE V PERMIT

Issue Date: 05/30/03

Effective Date: 06/20/03

Expiration Date: 06/20/08

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

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

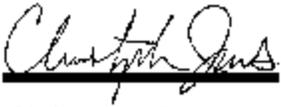
Table with 3 columns: Emissions Unit ID (Company ID), Emissions Unit Activity Description, and Emissions Unit Activity Description. Rows include units like B007 (No. 7 BF Boiler), B008 (No. 8 BF Boiler), B009 (No. 9 BF Boiler), B013 (No. 13 BF Boiler), F002 (Blast Furnace Raw Materials Unloading & Handling), F004 (Storage Piles), F005 (Plant Roadways & Parking lots), F008 (Mixers & Direct Pouring stations), F010 (Billet Caster), F011 (Bloom Caster), F013 (Blast Furnace Raw Material Handling), F021 (No. 6 Ladle Dryer / Preheater), P051 (Hot Scarfer), P057 (No. 5 Grinder), and P058 (Hot metal Desulfurization & Slag).

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

A handwritten signature in black ink, appearing to read "Christopher Jones", is written over a solid black horizontal line.

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. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) with respect to emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**
 - (a) Written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations ; (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 applicable, the permittee shall develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. (“Act”); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

- a. a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or
- b. as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

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

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.

A. State and Federally Enforcable Section (continued)

- 1.j** Except as provided below, the Director shall revise the NOx budget permit, as necessary, in accordance with OAC rule 3745-77-08.

Each NOx budget permit is deemed to incorporate automatically the definitions of terms under paragraph (B) of OAC rule 3745-14-01 and, when recorded by the Administrator, in accordance with OAC rules 3745-14-06 and 3745-14-07, every allocation, transfer, or deduction of a NOx allowance to or from the compliance accounts of the NOx budget units covered by the permit or the overdraft account of the NOx budget source covered by the permit.

[OAC rules 3745-14-03(D)(2) and 3745-14-03(E)(1)]

- 1.k** The owner or operator of a NOx budget unit shall comply with the following prohibitions under OAC rule 3745-14-08(A)(5):

i. No owner or operator of a NOx budget unit shall use any alternative monitoring system, alternative reference method, or any other alternative for the required continuous emission monitoring system without having obtained prior written approval in accordance with OAC rule 3745-14-08(F).

ii. No owner or operator of a NOx budget unit shall operate the unit so as to discharge, or allow to be discharged, NOx emissions to the atmosphere without accounting for all such emissions in accordance with the applicable provisions of this rule and 40 CFR Part 75 except as provided in 40 CFR 75.74.

iii. No owner or operator of a NOx budget unit shall disrupt the continuous emission monitoring system, any portion thereof, or any other approved emission monitoring method, and thereby avoid monitoring and recording NOx mass emissions discharged into the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of this rule and 40 CFR Part 75 except as provided in 40 CFR 75.74.

iv. No owner or operator of a NOx budget unit shall retire or permanently discontinue use of the continuous emission monitoring system, any component thereof, or any other approved emission monitoring system, except under any one of the following circumstances:

A. during the period that the unit is covered by an exemption under paragraphs (C)(2) and (D) of OAC rule 3745-14-01 of this Chapter that is in effect;

B. the owner or operator is monitoring emissions from the unit with another certified monitoring system approved by the Director, in accordance with the applicable provisions of this rule and 40 CFR Part 75, for use at that unit that provides emission data for the same pollutant or parameter as the retired or discontinued monitoring system; or

C. the NOx authorized account representative submits notification of the date of certification testing of a replacement monitoring system for the retired or discontinued monitoring system in accordance with OAC 3745-14-08(B)(2)(b).

[OAC rule 3745-14-08(A)(5)]

A. State and Federally Enforcable Section (continued)

- 1.l** The owners and operators of the NOx budget unit shall keep on site at the source each of the following documents for a period of five years from the date the document is created: (This period may be extended for cause, at any time prior to the end of five years, in writing by the Director or Administrator.)
- i. the account certificate of representation for the NOx authorized account representative for the NOx budget unit and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with paragraph (D) of OAC rule 3745-14-02, provided that the certificate and documents shall be retained on site at the source beyond such five-year period until such documents are superseded because of the submission of a new account certificate or representation changing the NOx authorized account representative;
 - ii. all emission monitoring information, in accordance with OAC rule 3745-14-08(E);
 - iii. copies of all reports, compliance certifications, and other submissions and all records made or required under the NOx budget trading program; and
 - iv. copies of all documents used to complete a NOx budget permit application and any other submission under the NOx budget trading program or to demonstrate compliance with the requirements of the NOx budget trading program.
[OAC rule 3745-14-01(E)(5)(a)(i) through (iv)]

- 1.m** The permittee shall operate and maintain equipment to continuously monitor and record nitrogen oxides emissions from these emissions units in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75.

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software. This includes all systems required to monitor the NOx emission rate, NOx concentration, heat input rate, and stack flow rate, in accordance with 40 CFR Parts 75.71 and 75.72.

The permittee shall comply with the initial and re-certification procedures of 40 CFR Part 75. The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous nitrogen oxides monitoring system has been certified in accordance with 40 CFR Part 75. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous nitrogen oxides monitoring system: emissions of nitrogen oxides in lb/mmBtu actual heat input on an hourly average basis, emissions of nitrogen oxides in lbs/hr, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

Whenever the monitoring system fails to meet the quality assurance or data validation requirements of 40 CFR Part 75, data shall be substituted using the applicable procedures in Subpart D, Appendix D, or Appendix E of 40 CFR Part 75.

[OAC rules 3745-14-01(E)(2)(a), 3745-14-01(E)(5)(a)(ii), 3745-14-08(A)(2)(a) through (A)(2)(d), 3745-14-08(B)(1), and 3745-14-08(C)(1)]

- 1.n** The owner or operator of a unit that is not subject to an Acid Rain emissions limitation shall comply with the requirements of 40 CFR 75.62, except that the monitoring plan is only required to include the information required by Subpart H of 40 CFR Part 75.
[OAC rule 3745-14-08(E)(2)(b)]
- 1.o** The NOx authorized account representative of the NOx budget unit shall submit the reports and compliance certifications required under the NOx budget trading program, including those under OAC rules 3745-14-04 and 3745-14-08, to the Director and Administrator.
[OAC rule 3745-14-01(E)(5)(b)]

A. State and Federally Enforcable Section (continued)

1.p Each submission under the NOx budget trading program shall be submitted, signed, and certified by the NOx authorized account representative for each NOx budget source on behalf of which the submission is made. Each such submission shall include the following certification statement by the NOx authorized account representative:

"I am authorized to make this submission on behalf of the owners and operators of the NOx budget sources or NOx budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."
[OAC rules 3745-14-02(A)(5)]

1.q The NOx authorized account representative shall submit quarterly reports that include all of the data and information required in Subpart H of 40 CFR Part 75 for each NOx budget unit (or group of units using a common stack). These quarterly excess emission reports shall be submitted within one month following the end of a calendar quarter covered by the report [by July 31 and October 31 for ozone season reporting in accordance with OAC rule 3745-14-08(E)(4)(b)(ii)] and shall be submitted in the manner specified in Subpart H of 40 CFR Part 75 and 40 CFR Part 75.64.
[OAC rules 3745-14-08(E)(4)(b) and 3745-14-08(E)(4)(c)(ii)]

1.r The NOx authorized account representative shall submit to the Administrator a compliance certification in support of each quarterly report based on a reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The compliance certification shall state that:

i. the monitoring data submitted were recorded in accordance with the applicable requirements of OAC rule 3745-14-08 and 40 CFR Part 75, including the quality assurance procedures and specifications; and

ii. for a unit with add-on NOx emission controls and for all hours where data are substituted in accordance with 40 CFR Part 75.34(a)(1), the add-on emission control were operating within the range of parameters listed in the quality assurance program under Appendix B of 40 CFR Part 75 and the substitute values do not systematically underestimate the NOx emissions.
[OAC rule 3745-14-08(E)(4)(d)(i) and (ii)]

1.s The NOx authorized account representative for a NOx budget unit shall submit written notice of monitoring system certification and re-certification test dates to the Director in accordance with 40 CFR Part 75.61. The NOx authorized account representative shall submit a certification application to the Administrator, U.S. EPA, Region V Office, and the Director within forty-five days after completing all initial or re-certification tests required under paragraph (B) of OAC rule 3745-14-08, including the information required under Subpart H of 40 CFR Part 75.
[OAC rules 3745-14-08(D) and 3745-14-08(E)(3)]

A. State and Federally Enforcable Section (continued)

1.t For each control period in which one or more NOx budget units at a source are subject to the NOx budget emission limitation, the NOx authorized account representative of the source shall submit to the Director and the Administrator, by November 30 of that year, a compliance certification report for each source covering all such units.

The NOx authorized account representative shall include the following elements in the compliance certification report, in a format prescribed by the Administrator, concerning each unit at the source and subject to the NOx budget emission limitation for the control period covered by the report:

- i. identification of each NOx budget unit;
- ii. at the NOx authorized account representative's option, the serial numbers of the NOx allowances that are to be deducted from each unit's compliance account under paragraph (E) of OAC rule 3745-14-06 for the control period;
- iii. at the NOx authorized account representative's option, for units sharing a common stack and having NOx emissions that are not monitored separately or apportioned in accordance with OAC rule 3745-14-08, the percentage of allowances that is to be deducted from each unit's compliance account under paragraph (E)(5) of OAC rule 3745-14-06; and
- iv. the compliance certification under paragraph (A)(3) of OAC rule 3745-14-04.
[OAC rules 3745-14-04(A)(1) and 3745-14-04(A)(2)]

1.u In the compliance certification report under Section A.1.t.iv above, the NOx authorized account representative shall certify, based upon reasonable inquiry of those persons with the primary responsibility for operating the source and the NOx budget units at the source in compliance with the NOx budget trading program, whether each NOx budget unit for which the compliance certification is submitted was operated during the calendar year covered by the report in compliance with the requirements of the NOx budget trading program applicable to the unit, including all the following:

- i. whether the unit was operated in compliance with the NOx budget emission limitation;
- ii. whether the monitoring plan that governs the unit has been maintained to reflect the actual operation and monitoring of the unit, and contains all information necessary to attribute NOx emissions to the unit, in accordance with OAC rule 3745-14-08;
- iii. whether all the NOx emissions from the unit, or group of units (including the unit) using a common stack, were monitored or accounted for through the missing data procedures and reported in the quarterly monitoring reports, including whether conditional data were reported in the quarterly reports in accordance with OAC rule 3745-14-08, and if conditional data were reported, the permittee shall indicate whether the status of all conditional data has been resolved and all necessary quarterly report resubmissions have been made; and
- iv. whether the facts that form the basis for certification under OAC rule 3745-14-08 of each monitor at the unit or group of units (including the unit) using a common stack, or for using an excepted monitoring method or alternative monitoring method approved under OAC rule 3745-14-08, if any, have changed.

If a change is required to be reported under Section A.1.u.iv above, specify the nature of the change, the reason for the change, when the change occurred, and how the unit's compliance status was determined subsequent to the change, including what method was used to determine emissions when a change mandated the need for monitor re-certification.

[OAC rule 3745-14-04(A)(3)]

1.v The NOx authorized account representative shall submit a complete NOx budget permit renewal application for the NOx budget source covering the NOx budget units at the source in accordance with paragraph (E) of OAC rule 3745-77-08.

[OAC rule 3745-14-03(B)(3)(a)]

A. State and Federally Enforcable Section (continued)

- 1.w** The emission measurements recorded and reported in accordance with OAC rule 3745-14-08 shall be used to determine compliance by the unit with the NOx budget emission limitation under paragraph (E)(3) of OAC rule 3745-14-01.
[OAC rule 3745-14-01(E)(2)(b)]
- 1.x** The permittee shall develop and maintain a written quality assurance/quality control plan for each continuous NOx monitoring system designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on-site and available for inspection during regular office hours.
[OAC rules 3745-14-08(A)(2)(c) and 3745-14-08(A)(2)(d)]
- 1.y** The NOx authorized account representative of the NOx budget units at this facility may submit a petition under 40 CFR 75.66 to the Director and the Administrator requesting approval to apply an alternative to any requirement of the NOx Budget Trading Program.
[OAC rule 3745-14-08(F)(2)]
- 1.z** In 1995, B013 burned blast furnace gas as its primary fuel more than 50% of the annual heat input (on a Btu basis). Therefore, if blast furnace gas is determined to not be a fossil fuel as that term is defined in OAC 3745-14-01, then this unit is not a NOx budget unit under OAC 3745-14-01(C).
- 2.** The permittee may be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial and Institutional Boilers and Process Heaters, 40 CFR Part 63, Subpart DDDDD, and Integrated Iron and Steel, 40 CFR Part 63, Subpart FFFFF. U.S. EPA failed to promulgate these standards by May 15, 2002, the Maximum Achievable Control Technology (MACT) hammer date. In accordance with 40 CFR Part 63, Subpart B (40 CFR Parts 63.50 through 63.56), if subject to this NESHAP, the permittee shall submit an application to revise the permit to include equivalent emission limitations as a result of a case-by-case MACT determination. The application shall be submitted in two parts. The deadline to submit the Part I application, as specified in 40 CFR Part 63.53, was May 15, 2002. The permittee submitted notice to the Ohio EPA on or about May 15, 2002, that it is not a major source of hazardous air pollutants (HAP) .
- 3.** If the final NESHAP standard is not promulgated by the deadline specified by U.S. EPA, and if the permittee is a major source of HAP at this deadline, the permittee shall submit the Part II application as specified in 40 CFR Part 63.53. The Part II application shall be submitted within 60 days after the deadline to promulgate the respective standard or by May 15, 2003, whichever is later. It must contain the following information, unless otherwise specified by future U.S. EPA regulations:
- a. for a new affected source, the anticipated date of startup of operation;
 - b. the hazardous air pollutants (HAPs) emitted by each affected source in the relevant source category and an estimated total uncontrolled and controlled emission rate for HAPs 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 (or MACT emission limitation), and, at the option of the permittee, a recommended MACT floor; and
 - 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 40 CFR Part 63.

A. State and Federally Enforcable Section (continued)

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 permittee 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; and
- c. relevant parameters to be monitored and frequency of monitoring to demonstrate continuous compliance with the MACT emission limitation over the applicable reporting period.

4. If the NESHAP is promulgated before the Part II application is due for the relevant source category, and if the permittee is a major source of HAP when the NESHAP is promulgated, the permittee may be subject to the rule as an existing major source with a compliance date as specified in the NESHAP. If subject, the permittee shall submit the following notifications:

- a. Unless otherwise specified in the relevant Subpart, within 120 days after promulgation of a 40 CFR Part 63 Subpart to which the source is subject, the permittee shall submit an Initial Notification Report that contains the following information, in accordance with 40 CFR Part 63.9(b)(2):
 - 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 standard and the source's compliance date;
 - iv. a brief description of the nature, design, size, and method of operation of the source, and an identification of the types of emission points within the affected source subject to the relevant standard and the types of HAPs emitted; and
 - v. a statement confirming the facility is a major source for HAPs.
- b. Unless otherwise specified in the relevant Subpart, within 60 days following completion of any required compliance demonstration activity specified in the relevant Subpart, 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 tests, visible emission observations, continuous monitoring systems 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 HAPs emitted by the source, reported in units and averaging times in accordance with the test methods specified in the relevant Subpart;
 - 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 HAP 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 the relevant Subpart.

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
P074 No. 3 Blast furnace pulverized coal injection
P085 No. 2 Bloom Caster Leaded Steel Torch Cut-off
P087 No. 2 Bloom Caster Leaded Steel Slag Ladle Dump Station
P088 No. 2 Bloom Caster Leaded Steel Ladle Make-up Station
Z001 Ladle repair station
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

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. 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, blast furnace gas, and fuel oil fired boiler) | OAC rule 3745-18-53(D)(1) | SO ₂ : 1.2 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 3745-17-10(C) | See Section A.I. 2.c. below. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule. |

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 a mixture of blast furnace gas with other gaseous fuels and/or No. 2 fuel oil.
- 2.c The maximum particulate emissions from this emission unit when burning any fuel oil, other than No. 2 fuel oil, shall be limited to 0.17 lb/MMBtu actual heat input.
- 2.d 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, record keeping and reporting for sulfur content for the blast furnace gas are 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.e Monitoring and record keeping for sulfur content is not required for natural gas because the sulfur dioxide emission rate from the burning of natural gas is less than the allowable sulfur dioxide emission rate in Section A.I.1 of these terms and conditions.

II. Operational Restrictions

1. The quality of the oil burned in this emissions unit shall meet a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 1.2 pounds per million Btu of actual heat input.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform, or require the supplier to perform the analysis for sulfur content, heat content, and density in accordance with the most recent versions of the following ASTM methods: ASTM method D4294, ASTM method D240, ASTM D1552, or ASTM method 2622 for sulfur content; and ASTM method D240 for heat content; and ASTM D1298 or ASTM D4052 for density. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Northeast District Office.
2. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the following information:
 - i. the type and total quantity of fuel oil received;
 - ii. the results of the permittee's or oil supplier's analysis for sulfur content, heat content, and density; and
 - iii. the calculated sulfur dioxide emission rate, in lbs of SO₂/MMBtu. (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)
3. On any day the permittee burns a fuel oil, which based upon the results of the analysis of the fuel oil, would not comply with the sulfur dioxide limit as calculated in accordance with the formula specified in OAC rule 3745-18-04(F), the following records and calculations shall be maintained:
 - a. daily quantity of each fuel burned; and
 - b. daily sulfur dioxide emission rate (in lbs/MMBtu) using the equation in Section A.V.1.a. of this permit.
4. The permittee shall perform daily checks, when a fuel oil other than No. 2 fuel oil is burned in this emissions unit, 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 deviation (excursion) reports that identify each day when the calculated sulfur dioxide emission rate, for each fuel burned in this emissions unit, did not comply with the sulfur dioxide limit using the formula specified in OAC rule 3745-18-04(F). The reports shall include the daily quantity of each fuel burned and the calculated daily sulfur dioxide emission rate (in lbs/MMBtu) using the equation in Section A.V.1.a of this permit.
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 when a fuel oil, other than No. 2 fuel oil, was burned and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month 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:

1.2 lbs of SO₂ per MMBtu

Applicable Compliance Method:

When firing fuel oil and blast furnace gas and/or natural gas, compliance may be determined by using the following equation:

$$E = [(10^{16} * G * D * S * 1.974) + (2.2 / 75 * B)] / [(H * G) + (75 * B) + (1030 * N)]$$

where:

E = SO₂ emission rate, in lbs of SO₂/MMBtu

G = quantity of oil burned in gallons

D = density of oil, in lbs/gallon

S = decimal fraction of sulfur in the oil

2.2 = 2.2 lbs of SO₂/MM scf of blast furnace gas (facility's measurement and calculation)

75 = 75 Btu/scf of blast furnace gas

B = quantity of blast furnace gas burned, in scf

H = heat content of oil, in Btu/gallon

1030 = 1030 Btu/scf of natural gas

N = quantity of natural gas burned, in scf

- 1.b Emission Limitation:

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

Applicable Compliance Method:

When firing natural gas, 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.

When firing No. 2 fuel oil, compliance may be determined by using the following equation:

$$E = (A / C)$$

where:

E = No. 2 fuel oil particulate emissions, in lb/MMBtu

A = emission factor, 2 lb/10³ gal

C = heating value, 140 MMBtu/10³ gal

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 and/or No. 2 fuel oil.

V. Testing Requirements (continued)

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 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.

1.d Emission Limitation:

0.17 lb of PE per MMBtu of actual heat input (when firing fuel oil other than No. 2 fuel oil)

Applicable Compliance Method:

When firing No. 4 fuel oil, compliance may be determined by using the following equation:

$$E = (A / C)$$

where:

E = No. 4 fuel oil particulate emissions, in lb/MMBtu

A = emission factor, 7 lb/10³ gal

C = heating value, 150 MMBtu/10³ gal

When firing No. 5 fuel oil, compliance may be determined by using the following equation:

$$E = (A / C)$$

where:

E = No. 5 fuel oil particulate emissions, in lb/MMBtu

A = emission factor, 10 lb/10³ gal

C = heating value, 150 MMBtu/10³ gal

When firing No. 6 fuel oil, compliance may be determined by using the following equation:

$$E = (A / C)$$

where:

E = No. 6 fuel oil particulate emissions, in lb/MMBtu

A = emission factor, [(9.19*S)+3.22] lb/10³ gal, where S is the weight % of sulfur in oil. For example, if fuel oil is 1% sulfur, then S = 1.

C = heating value, 150 MMBtu/10³ gal

V. Testing Requirements (continued)

When firing No. 6 fuel oil and blast furnace gas and/or natural gas, compliance may be determined by using the following equation:

$$E = [A * G + (0.826 * B) + (1.9 * N)] / [(H * G) + (75 * B) + (1030 * N)]$$

where:

E = PE emission rate, in lbs of PE/MMBtu

A = emission factor, $[(9.19 * S) + 3.22]$ lb/10³ gal, where S is the weight % of sulfur in oil. For example, if fuel oil is 1% sulfur, then S = 1.

G = quantity of No. 6 fuel oil burned, in gallons

0.826 = 0.826 lb of PE/MMscf of blast furnace gas (facility's emission factor)

B = quantity of blast furnace gas burned, in scf

N = quantity of natural gas burned, in scf

H = heat content of No. 6 fuel oil, in Btu/gal

75 = 75 Btu/scf of blast furnace gas

1030 = 1030 Btu/scf of natural gas

1.9 = natural gas emission factor, in lbs of PE/MMscf

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 other than No. 2 fuel oil.

1.e Emission Limitation:

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

Applicable Compliance Method:

If required, 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> |
|---|---|--|
|---|---|--|

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, blast furnace gas, and fuel oil fired boiler) | OAC rule 3745-18-53(D)(1) | SO ₂ : 1.2 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 3745-17-10(C) | See Section A.I. 2.c. below. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule. |

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 a mixture of blast furnace gas with other gaseous fuels and/or No. 2 fuel oil.
- 2.c The maximum particulate emissions from this emission unit when burning any fuel oil, other than No. 2 fuel oil, shall be limited to 0.17 lb/MMBtu actual heat input.
- 2.d 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, record keeping and reporting for sulfur content for the blast furnace gas are 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.e Monitoring and record keeping for sulfur content is not required for natural gas because the sulfur dioxide emission rate from the burning of natural gas is less than the allowable sulfur dioxide emission rate in Section A.I.1 of these terms and conditions.

II. Operational Restrictions

1. The quality of the oil burned in this emissions unit shall meet a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 1.2 pounds per million Btu of actual heat input.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform, or require the supplier to perform the analysis for sulfur content, heat content, and density in accordance with the most recent versions of the following ASTM methods: ASTM method D4294, ASTM method D240, ASTM D1552, or ASTM method 2622 for sulfur content; and ASTM method D240 for heat content; and ASTM D1298 or ASTM D4052 for density. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Northeast District Office.
2. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the following information:
 - i. the type and total quantity of fuel oil received;
 - ii. the results of the permittee's or oil supplier's analysis for sulfur content, heat content, and density; and
 - iii. the calculated sulfur dioxide emission rate, in lbs of SO₂/MMBtu. (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)
3. On any day the permittee burns a fuel oil, which based upon the results of the analysis of the fuel oil, would not comply with the sulfur dioxide limit as calculated in accordance with the formula specified in OAC rule 3745-18-04(F), the following records and calculations shall be maintained:
 - a. daily quantity of each fuel burned; and
 - b. daily sulfur dioxide emission rate (in lbs/MMBtu) using the equation in Section A.V.1.a. of this permit.
4. The permittee shall perform daily checks, when a fuel oil other than No. 2 fuel oil is burned in this emissions unit, 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 deviation (excursion) reports that identify each day when the calculated sulfur dioxide emission rate, for each fuel burned in this emissions unit, did not comply with the sulfur dioxide limit using the formula specified in OAC rule 3745-18-04(F). The reports shall include the daily quantity of each fuel burned and the calculated daily sulfur dioxide emission rate (in lbs/MMBtu) using the equation in Section A.V.1.a of this permit.
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 when a fuel oil, other than No. 2 fuel oil, was burned and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month 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:

1.2 lbs of SO₂ per MMBtu

Applicable Compliance Method:

When firing fuel oil and blast furnace gas and/or natural gas, compliance may be determined by using the following equation:

$$E = [(10^{16} * G * D * S * 1.974) + (2.2 / 75 * B)] / [(H * G) + (75 * B) + (1030 * N)]$$

where:

E = SO₂ emission rate, in lbs of SO₂/MMBtu

G = quantity of oil burned in gallons

D = density of oil, in lbs/gallon

S = decimal fraction of sulfur in the oil

2.2 = 2.2 lbs of SO₂/MM scf of blast furnace gas (facility's measurement and calculation)

75 = 75 Btu/scf of blast furnace gas

B = quantity of blast furnace gas burned, in scf

H = heat content of oil, in Btu/gallon

1030 = 1030 Btu/scf of natural gas

N = quantity of natural gas burned, in scf

1.b Emission Limitation:

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

Applicable Compliance Method:

When firing natural gas, 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.

When firing No. 2 fuel oil, compliance may be determined by using the following equation:

$$E = (A / C)$$

where:

E = No. 2 fuel oil particulate emissions, in lb/MMBtu

A = emission factor, 2 lb/10³ gal

C = heating value, 140 MMBtu/10³ gal

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 and/or No. 2 fuel oil.

V. Testing Requirements (continued)

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 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.

1.d Emission Limitation:

0.17 lb of PE per MMBtu of actual heat input (when firing fuel oil other than No. 2 fuel oil)

Applicable Compliance Method:

When firing No. 4 fuel oil, compliance may be determined by using the following equation:

$$E = (A / C)$$

where:

E = No. 4 fuel oil particulate emissions, in lb/MMBtu

A = emission factor, 7 lb/10³ gal

C = heating value, 150 MMBtu/10³ gal

When firing No. 5 fuel oil, compliance may be determined by using the following equation:

$$E = (A / C)$$

where:

E = No. 5 fuel oil particulate emissions, in lb/MMBtu

A = emission factor, 10 lb/10³ gal

C = heating value, 150 MMBtu/10³ gal

When firing No. 6 fuel oil, compliance may be determined by using the following equation:

$$E = (A / C)$$

where:

E = No. 6 fuel oil particulate emissions, in lb/MMBtu

A = emission factor, [(9.19*S)+3.22] lb/10³ gal, where S is the weight % of sulfur in oil. For example, if fuel oil is 1% sulfur, then S = 1.

C = heating value, 150 MMBtu/10³ gal

V. Testing Requirements (continued)

When firing No. 6 fuel oil and blast furnace gas and/or natural gas, compliance may be determined by using the following equation:

$$E = [A * G + (0.826 * B) + (1.9 * N)] / [(H * G) + (75 * B) + (1030 * N)]$$

where:

E = PE emission rate, in lbs of PE/MMBtu

A = emission factor, $[(9.19 * S) + 3.22]$ lb/10³ gal, where S is the weight % of sulfur in oil. For example, if fuel oil is 1% sulfur, then S = 1.

G = quantity of No. 6 fuel oil burned, in gallons

0.826 = 0.826 lb of PE/MMscf of blast furnace gas (facility's emission factor)

B = quantity of blast furnace gas burned, in scf

N = quantity of natural gas burned, in scf

H = heat content of No. 6 fuel oil, in Btu/gal

75 = 75 Btu/scf of blast furnace gas

1030 = 1030 Btu/scf of natural gas

1.9 = natural gas emission factor, in lbs of PE/MMscf

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 other than No. 2 fuel oil.

1.e Emission Limitation:

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

Applicable Compliance Method:

If required, 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> |
|---|---|--|
|---|---|--|

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

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. 9 blast furnace boiler (225 MMBtu/hr natural gas, blast furnace gas, and fuel oil fired boiler) | OAC rule 3745-18-53(D)(1) | SO ₂ : 1.2 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 3745-17-10(C) | See Section A.I. 2.c. below. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule. |

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 a mixture of blast furnace gas with other gaseous fuels and/or No. 2 fuel oil.
- 2.c The maximum particulate emissions from this emission unit when burning any fuel oil, other than No. 2 fuel oil, shall be limited to 0.17 lb/MMBtu actual heat input.
- 2.d 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, record keeping and reporting for sulfur content for the blast furnace gas are 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.e Monitoring and record keeping for sulfur content is not required for natural gas because the sulfur dioxide emission rate from the burning of natural gas is less than the allowable sulfur dioxide emission rate in Section A.I.1 of these terms and conditions.

II. Operational Restrictions

1. The quality of the oil burned in this emissions unit shall meet a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 1.2 pounds per million Btu of actual heat input.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform, or require the supplier to perform the analysis for sulfur content, heat content, and density in accordance with the most recent versions of the following ASTM methods: ASTM method D4294, ASTM method D240, ASTM D1552, or ASTM method 2622 for sulfur content; and ASTM method D240 for heat content; and ASTM D1298 or ASTM D4052 for density. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Northeast District Office.
2. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the following information:
 - i. the type and total quantity of fuel oil received;
 - ii. the results of the permittee's or oil supplier's analysis for sulfur content, heat content, and density; and
 - iii. the calculated sulfur dioxide emission rate, in lbs of SO₂/MMBtu. (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)
3. On any day the permittee burns a fuel oil, which based upon the results of the analysis of the fuel oil, would not comply with the sulfur dioxide limit as calculated in accordance with the formula specified in OAC rule 3745-18-04(F), the following records and calculations shall be maintained:
 - a. daily quantity of each fuel burned; and
 - b. daily sulfur dioxide emission rate (in lbs/MMBtu) using the equation in Section A.V.1.a. of this permit.
4. The permittee shall perform daily checks, when a fuel oil other than No. 2 fuel oil is burned in this emissions unit, 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 deviation (excursion) reports that identify each day when the calculated sulfur dioxide emission rate, for each fuel burned in this emissions unit, did not comply with the sulfur dioxide limit using the formula specified in OAC rule 3745-18-04(F). The reports shall include the daily quantity of each fuel burned and the calculated daily sulfur dioxide emission rate (in lbs/MMBtu) using the equation in Section A.V.1.a of this permit.
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 when a fuel oil, other than No. 2 fuel oil, was burned and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month 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:

1.2 lbs of SO₂ per MMBtu

Applicable Compliance Method:

When firing fuel oil and blast furnace gas and/or natural gas, compliance may be determined by using the following equation:

$$E = [(10^{16} * G * D * S * 1.974) + (2.2 / 75 * B)] / [(H * G) + (75 * B) + (1030 * N)]$$

where:

E = SO₂ emission rate, in lbs of SO₂/MMBtu

G = quantity of oil burned in gallons

D = density of oil, in lbs/gallon

S = decimal fraction of sulfur in the oil

2.2 = 2.2 lbs of SO₂/MM scf of blast furnace gas (facility's measurement and calculation)

75 = 75 Btu/scf of blast furnace gas

B = quantity of blast furnace gas burned, in scf

H = heat content of oil, in Btu/gallon

1030 = 1030 Btu/scf of natural gas

N = quantity of natural gas burned, in scf

1.b Emission Limitation:

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

Applicable Compliance Method:

When firing natural gas, 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.

When firing No. 2 fuel oil, compliance may be determined by using the following equation:

$$E = (A / C)$$

where:

E = No. 2 fuel oil particulate emissions, in lb/MMBtu

A = emission factor, 2 lb/10³ gal

C = heating value, 140 MMBtu/10³ gal

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 and/or No. 2 fuel oil.

V. Testing Requirements (continued)

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 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.

1.d Emission Limitation:

0.17 lb of PE per MMBtu of actual heat input (when firing fuel oil other than No. 2 fuel oil)

Applicable Compliance Method:

When firing No. 4 fuel oil, compliance may be determined by using the following equation:

$$E = (A / C)$$

where:

E = No. 4 fuel oil particulate emissions, in lb/MMBtu

A = emission factor, 7 lb/10³ gal

C = heating value, 150 MMBtu/10³ gal

When firing No. 5 fuel oil, compliance may be determined by using the following equation:

$$E = (A / C)$$

where:

E = No. 5 fuel oil particulate emissions, in lb/MMBtu

A = emission factor, 10 lb/10³ gal

C = heating value, 150 MMBtu/10³ gal

When firing No. 6 fuel oil, compliance may be determined by using the following equation:

$$E = (A / C)$$

where:

E = No. 6 fuel oil particulate emissions, in lb/MMBtu

A = emission factor, [(9.19*S)+3.22] lb/10³ gal, where S is the weight % of sulfur in oil. For example, if fuel oil is 1% sulfur, then S = 1.

C = heating value, 150 MMBtu/10³ gal

V. Testing Requirements (continued)

When firing No. 6 fuel oil and blast furnace gas and/or natural gas, compliance may be determined by using the following equation:

$$E = [A \cdot G + (0.826 \cdot B) + (1.9 \cdot N)] / [(H \cdot G) + (75 \cdot B) + (1030 \cdot N)]$$

where:

E = PE emission rate, in lbs of PE/MMBtu

A = emission factor, $[(9.19 \cdot S) + 3.22]$ lb/10³ gal, where S is the weight % of sulfur in oil. For example, if fuel oil is 1% sulfur, then S = 1.

G = quantity of No. 6 fuel oil burned, in gallons

0.826 = 0.826 lb of PE/MMscf of blast furnace gas (facility's emission factor)

B = quantity of blast furnace gas burned, in scf

N = quantity of natural gas burned, in scf

H = heat content of No. 6 fuel oil, in Btu/gal

75 = 75 Btu/scf of blast furnace gas

1030 = 1030 Btu/scf of natural gas

1.9 = natural gas emission factor, in lbs of PE/MMscf

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 other than No. 2 fuel oil.

1.e Emission Limitation:

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

Applicable Compliance Method:

If required, 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> |
|---|---|--|
|---|---|--|

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, blast furnace gas, and No. 2 fuel oil fired boiler) | OAC rule 3745-18-53(D)(3) | SO ₂ : 0.31 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 3745-17-10(C) | See Section A.I. 2.c. below. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule. |

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 a mixture of blast furnace gas with other gaseous fuels and/or No. 2 fuel oil.
- 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 for 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 Monitoring and record keeping for sulfur content is not required for natural gas because the sulfur dioxide emission rate from the burning of natural gas is 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, blast furnace gas, and No. 2 fuel oil as fuels in this emissions unit.
2. The quality of the oil burned in this emissions unit shall meet a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.31 pounds per million Btu of actual heat input.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform, or require the supplier to perform, the analysis for sulfur content, heat content, and density in accordance with the most recent versions of the following ASTM methods: ASTM method D4294, ASTM method D240, ASTM D1552, or ASTM method 2622 for sulfur content; and ASTM method D240 for heat content; and ASTM D1298 or ASTM D4052 for density. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Northeast District Office.
2. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the following information:
 - i. the type and total quantity of fuel oil received;
 - ii. the results of the permittee's or oil supplier's analyses for sulfur content, heat content, and density; and
 - iii. the calculated sulfur dioxide emission rate, in lbs of SO₂/MMBtu. (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)
3. On any day the permittee burns a fuel oil, which based upon the results of the analyses of the fuel oil, would not comply with the sulfur dioxide limit as calculated in accordance with the formula specified in OAC rule 3745-18-04(F), the following records and calculations shall be maintained:
 - a. daily quantity of each fuel burned; and
 - b. daily sulfur dioxide emission rate (in lbs/MMBtu) using the equation in Section A.V.1.a. of this permit.
4. For each day during which the permittee burns a fuel, other than natural gas, blast furnace gas, or No. 2 fuel oil, 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 quarterly reports that identify each day when a fuel, other than natural gas, blast furnace gas, or No. 2 fuel oil, was burned in this emissions unit.
2. The permittee shall submit quarterly deviation (excursion) reports that identify each day when the calculated sulfur dioxide emission rate, for each fuel burned in this emissions unit, did not comply with the sulfur dioxide limit using the formula specified in OAC rule 3745-18-04(F). The reports shall include the daily quantity of each fuel burned and the calculated daily sulfur dioxide emission rate (in lbs/MMBtu) using the equation in Section A.V.1.a of this permit.
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:

0.31 lbs of SO₂ per MMBtu

Applicable Compliance Method:

When firing fuel oil and blast furnace gas and/or natural gas, compliance may be determined by using the following equation:

$$E = [(10^6 * G * D * S * 1.974) + (2.2 / 75 * B)] / [(H * G) + (75 * B) + (1030 * N)]$$

where:

E = SO₂ emission rate, in lbs of SO₂/MMBtu

G = quantity of oil burned in gallons

D = density of oil, in lbs/gallon

S = decimal fraction of sulfur in the oil

2.2 = 2.2 lbs of SO₂/MM scf of blast furnace gas (facility's measurement and calculation)

75 = 75 Btu/scf of blast furnace gas

B = quantity of blast furnace gas burned, in scf

H = heat content of oil, in Btu/gallon

1030 = 1030 Btu/scf of natural gas

N = quantity of natural gas burned, in scf

1.b Emission Limitation:

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

Applicable Compliance Method:

When firing natural gas, 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.

When firing No. 2 fuel oil, compliance may be determined by using the following equation:

$$E = (A / C)$$

where:

E = No. 2 fuel oil particulate emissions, in lb/MMBtu

A = emission factor, 2 lb/10³ gal

C = heating value, 140 MMBtu/10³ gal

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 and/or No. 2 fuel oil.

V. Testing Requirements (continued)

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 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.

1.d Emission Limitation:

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

Applicable Compliance Method:

If required, 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> |
|---|---|--|
|---|---|--|

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 Materials Unloading & Handling (F002)
Activity Description: Blast furnace raw materials, unloading from boat and transfer via conveyor system

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 materials unloading from boat and transfer via conveyor system | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average except as provided by rule. |
| | OAC rule 3745-17-08 (B) | 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:

raw materials transfer from boat to hopper
 raw materials transfer via conveyor A
 raw materials transfer via transfer house #1
 raw materials transfer via conveyor B
 raw materials transfer via transfer house #2
 raw materials transfer via conveyor C

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:

raw material unloading to hopper and transfer via conveyors A through C

control measures:

application of sufficient water, as needed, to control dust emissions from hopper and conveyors (because the fines contents of the raw materials are very low, the permittee does not believe the application of water will be necessary under normal operating conditions to minimize or eliminate visible emissions of fugitive dust)

material handling operations:

transfer houses #1 and # 2

control measures:

maintain the total enclosure around each transfer point

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 each of such operations in accordance with the following minimum frequencies:

| | |
|--------------------------------|------------------------------|
| material handling operation(s) | minimum inspection frequency |
|--------------------------------|------------------------------|

| | |
|--|--------------------|
| unloading to hopper and transfer via conveyors A-C | once/unloading day |
|--|--------------------|

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.

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

3. 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 3.d. 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.

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:

If required, 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> |
|---|---|--|
|---|---|--|

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Storage Piles (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, except as provided by rule. |
| | 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 All storage piles at this facility are covered by this emissions unit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08.
- 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, as needed, to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 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. Additional Terms and Conditions (continued)

- 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, as needed, 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 the following load-in operations in accordance with the following frequencies:

Storage pile identification: Minimum load-in inspection frequency:

| | |
|--------------------|--------|
| iron ore pellets | weekly |
| limestone/dolomite | weekly |
| coke | weekly |
| BF flue dust | weekly |
| swarf | weekly |
| lime | weekly |
| other* | weekly |

The frequency of inspections for a particular type of storage pile may be reduced upon written approval by the Northeast District Office.

* Inspection of the other storage piles at the facility are not required as long as there are no visible fugitive dust emissions during normal load-in operations.

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

2. Except as otherwise provided in this section, the permittee shall perform inspections of the following load-out operations in accordance with the following frequencies:

Storage pile identification: Minimum load-out inspection frequency:

| | |
|--------------------|--------|
| iron ore pellets | weekly |
| limestone/dolomite | weekly |
| coke | weekly |
| BF flue dust | weekly |
| swarf | weekly |
| lime | weekly |
| other* | weekly |

The frequency of inspections for a particular type of storage pile may be reduced upon written approval by the Northeast District Office.

* Inspection of the other storage piles at the facility are not required as long as there are no visible fugitive dust emissions during normal load-out operations.

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

Storage pile identification: Minimum load-out inspection frequency:

| | |
|--------------------|--------|
| iron ore pellets | weekly |
| limestone/dolomite | weekly |
| coke | weekly |
| BF flue dust | weekly |
| swarf | weekly |
| lime | weekly |
| other* | weekly |

The frequency of inspections for a particular type of storage pile may be reduced upon written approval by the Northeast District Office.

* Inspection of the wind erosion from the pile surfaces on other storage piles at the facility are not required as long as there are no visible fugitive dust emissions during normal operations.

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.

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

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 6.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.

IV. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
 - a. Each week 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, or for load-in operations because there were no load-in during the week, or for load-out operations because there were no load-out operations during the week; 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):
 - 1.a Emission Limitation:

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

Applicable Compliance Method:

If required, compliance with the emission limitation for the 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.

V. Testing Requirements (continued)

1.b Emission Limitation:

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

Applicable Compliance Method:

If required, compliance with the emission limitation for the 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> |
|---|---|--|
|---|---|--|

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:

RSP01 - Main Road

RSP02 - Blast Furnace

RSP03 - Billet Caster

RSP04 - Bar Mills / Tech Center

RSP05 - Wood Gate

paved parking areas:

PAP01 - Iron Production Office Lot

PAP02 - Mainframe Building Lot

PAP03 - Systems Lot

PAP04 - Security Lot

PAP05 - Fire Station Lot

PAP06 - Rolling Mill Offices Lot

PAP07 - Transportation/Main Garage Lot

PAP08 - Tech Center Lot

PAP09 - Bar Mill Division Offices Lot

PAP10 - Bar Mill Maintenance Offices Lot

PAP20 - Vine Avenue Lot

PAP21 - Globe Avenue Lot

PAP22 - Pearl Gate Lot

PAP23 - Oakwook Avenue Lot

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:

RSU01 - North Road

RSU02 - 100's

RSU03 - BOP Shop

RSU04 - Bloom Caster

RSU05 - Shipping

RSU06 - Bloom Reheat Furnace

unpaved parking areas:

PAU01 - Transportation Lot

PAU02 - 21st St. Garage Lot

- 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 vacuum machine or water flushing at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other equally effective 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 equally effective 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 equally effective 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. Additional Terms and Conditions (continued)

- 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.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 has 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 each of the roadway segments and each parking area, unless the permittee relies on a designated roadway segment or parking areas to determine the need for implementing the control measures for a group of roadway segments or parking areas, in accordance with the following frequencies:

| | |
|------------------------------------|------------------------------|
| paved roadways and parking areas | minimum inspection frequency |
| all | weekly |
| unpaved roadways and parking areas | minimum inspection frequency |
| all | weekly* |

*Because the permittee primarily employs chemical dust suppressants for the unpaved roadways, a minimum inspection frequency of weekly has been established rather than daily.

The frequency of inspections may be reduced upon the written approval of the Northeast District Office.

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.
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 3.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 week 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:

If required, 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> |
|---|---|--|
|---|---|--|

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. | 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, except as provided by rule. 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.

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

II. Operational Restrictions

1. The flame suppression system shall be in operation at all times during pouring of molten iron 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. 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.

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

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

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

Applicable Compliance Method:

If required, 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> |
|---|---|--|
|---|---|--|

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 casting of billets and rounds

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 (excluding east and west billet torches) | 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, except as provided by rule. 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 during casting 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. 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.

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

2. The permittee shall perform weekly checks, when at least one or more of emissions units P067 and/or F010 is (are) in operation and when weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building openings) 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 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 deviation (excursion) reports that identify each day when the ladle and/or tundish covers were not utilized during the caster operation.
2. The permittee shall submit semiannual written reports that (a) identify all weeks during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving P067 and/or F010 and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

If required, 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> |
|---|---|--|
|---|---|--|

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 and ancillary operations (including ladle transfer of leaded steel) equipped with a baghouse during leaded steel production | OAC rule 3745-31-05(A)(3) PTI No. 02-11888 | PE: 0.002 gr/dscf for the exhaust gases from the baghouse. 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. |
| | | 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. |
| | 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 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** When casting leaded steel, the emissions from the ladle and tundish shall be controlled by a 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** When not casting leaded steel, 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
 - Torch cut-off
- 2.c** When not casting leaded steel, 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
 - Torch cut-off
- 2.d** When casting leaded steel, 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
 - Spray Chamber
- 2.e** Particulate emissions captured by the fume collection system for the ladle and tundish 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.f** Visible particulate emissions of fugitive dust from all the operations associated with the No. 2 continuous bloom caster shall not exceed 5% opacity as a 6-minute average, at the building egress points.
- 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. Additional Terms and Conditions (continued)

- 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 cooling.
- 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 during leaded steel casting. The pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure differential range as a result of bag replacements.

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 throughput for the No. 2 continuous bloom caster to 1,200,000 tons per year, based upon a rolling 365-day summation.

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 continuous bloom caster; and
 - d. rolling 365-day summation of the steel throughput for the No. 2 continuous bloom caster.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation during leaded steel casting. 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 week basis during leaded steel casting.
3. The permittee shall continue to implement an 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.

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

4. The permittee shall perform inspections of the fume collection system used to minimize or eliminate visible fugitive particulate emissions from the tundish during leaded steel casting. 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.e. The inspections shall be performed during representative, normal operating conditions.

The frequency of inspections may be reduced upon written approval of the Ohio EPA, Northeast District Office.

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 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 weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
7. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible 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 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 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 was not within 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 baghouse, 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 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 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.
7. 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 or near 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 field 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 = 0.0007 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)")

B = maximum weight per heat, 220 tons/heat

C = duration of operation, 75 mins/heat

60 = 60 minutes per hour

Flux handling:

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

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 = duration of operation, 5 minutes/heat

D = total number of heats per year

60 = 60 minutes per hour

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)

V. Testing Requirements (continued)

Tundish dump station:

$$E = (A) \cdot (1/B) \cdot (60)$$

where:

E = particulate emissions, in lbs/hr

A = 5 lbs/dump 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)")

B = duration of operation, 20 minutes/dump (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)")

60 = 60 minutes per hour

Torch cut-off:

$$E = A \cdot B \cdot (1/C) \cdot (60)$$

where:

E = particulate emissions, in lb/hr

A = 0.0003 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)")

B = maximum weight of heat, 220 tons/heat

C = duration of operation, 75 minutes/heat

60 = 60 minutes per hour

Torches natural gas:

$$E = (A) \cdot (1/B) \cdot (C)$$

where:

E = particulate emissions, in tons/yr

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)

Spray chamber:

$$E = (A) \cdot (B) \cdot (1/C) \cdot (1/D) \cdot (60)$$

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 = duration of operation, 75 minutes/heat

D = total number of heats per year

60 = 60 minutes per hour

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 = 0.0007 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)")

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/dump (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)

Torch cut-off:

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

where:

E = particulate emissions, in tons/yr

A = 0.0003 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)")

B = maximum weight of heat, 220 tons/heat

C = total number of heats per year

Torch 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)

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 = 0.0007 lb/ton of PM10 (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, 75 mins/heat

60 = 60 minutes per hour

Flux handling:

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

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 = duration of operation, 5 minutes/heat

D = total number of heats per year

60 = 60 minutes per hour

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)

V. Testing Requirements (continued)

Tundish dump station:

$$E = (A) \cdot (1/B) \cdot (60)$$

where:

E = particulate emissions, in lbs/hr

A = 1.50 lbs of PM10/dump (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 = duration of operation, 20 minutes/dump (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)")

60 = 60 minutes per hour

Torch cut-off:

$$E = A \cdot B \cdot (1/C) \cdot (60)$$

where:

E = particulate emissions, in lb/hr

A = 0.0003 lb/ton of PM10 (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 of heat, 220 tons/heat

C = duration of operation, 75 minutes/heat

60 = 60 minutes per hour

Torches natural gas:

$$E = (A) \cdot (1/B) \cdot (C)$$

where:

E = particulate emissions, in tons/yr

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)

Spray chamber:

$$E = (A) \cdot (B) \cdot (1/C) \cdot (1/D) \cdot (60)$$

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 = duration of operation, 75 minutes/heat

D = total number of heats per year

60 = 60 minutes per hour

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:

13.27 tons 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 = 0.0007 lb/ton of PM10 (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

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/dump (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)

Torch cut-off:

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

where:

E = particulate emissions, in tons/yr

A = 0.0003 lb/ton of PM10 (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 of heat, 220 tons/heat

C = total number of heats per year

Torch 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)

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.

V. Testing Requirements (continued)

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 (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, 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, 220 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, 75 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 lead 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 (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 lead heats per year

Spray chamber:

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

where:

E = particulate emissions, in tons/yr

A = annual leaded 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:

If required, 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:

If required, compliance with the visible fugitive 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> |
|---|---|--|
|---|---|--|

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 furnace raw materials to BF bins

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 bin filling, by front end loader, dump truck or railcar | OAC rule 3745-17-07(B)(8)(b) | Visible particulate emissions from any material handling operation shall not exceed 20% opacity. See Section A.I.2.d. |
| | OAC rule 3745-17-08 (B) | 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.c) |

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 consist of the loading of raw materials into the blast furnace storage bins and the below-grade transfer of raw materials from the storage bins into the skip cars.
- 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):
 loading of raw materials into storage bins

control measure(s):
 ensure a minimum drop height while loading into below-grade storage bins

material handling operation(s):
 transfer of materials into the skip cars

control measure(s):
 transfer the materials, at all times, below grade

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

2. Additional Terms and Conditions (continued)

- 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 20% opacity limitation was adopted by the Director of Ohio EPA in December, 1997. The USEPA has agreed to consider the 20% 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 |
|--|------------------------------|
| loading of raw materials into storage bins | 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 eliminate the visible emissions of fugitive dust from the material handling operation. No inspections are required for the below-grade transfer of materials into the skip cars.

The frequency of inspections may be reduced upon written approval of the Ohio EPA, Northeast District Office.

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

The information 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 quarterly deviation reports that identify any of the following occurrences:
- each week during which an inspection was not performed by the required frequency; and
 - each instance when any additional control measure, that was to be performed as a result of an inspection, was not implemented.

IV. Reporting Requirements (continued)

2. 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 If required, 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> |
|---|---|--|
|---|---|--|

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 3745-17-08(B) | See Section A.I.2.a. below. |
| | OAC rule 3745-17-07(B)(1) | See Section A.I.2.b. below. |
| | OAC rule 3745-18-06(E) | SO ₂ : 293 lbs/hr See Section A.I.2.c. below. |

2. Additional Terms and Conditions

- 2.a 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.b Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average, except as provided by rule. 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 No monitoring, record keeping, and reporting requirements are required for SO₂ due to low SO₂ 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 quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.

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

If required, 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> |
|---|---|--|
|---|---|--|

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 defects

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 an electrostatic precipitator (ESP) | OAC rule 3745-17-11 | PE: 6.53 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, except as provided by rule. 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. To help ensure ongoing compliance with OAC rule 3745-17-11, the permittee shall operate the ESP in a manner that will ensure, while this emissions unit is in operation, that the secondary voltage is continuously met and that under-voltage conditions do not exist.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record each day all periods of time when the ESP was out of service when the associated emissions unit was in operation.

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

2. The permittee shall monitor and record the secondary voltage one time per day while the emissions unit is in operation.
3. The permittee shall perform weekly checks, when the emissions unit is in operation and when weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building openings) 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 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 also submit quarterly deviation (excursion) reports that identify each time period during which this emissions unit was in operation and the minimum secondary level was not being met.
2. The permittee shall submit semiannual written reports that (a) identify all weeks 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 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 deviation (excursion) reports that identify all periods of time during the operation of this emissions unit when the ESP was not in operation.

The deviation (excursion) reports shall be submitted in accordance with 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):

V. Testing Requirements (continued)

1.a Emission Limitation:

6.53 lbs of particulate emission per hour

Applicable Compliance Method:

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, with only one ESP module being energized during the tests, or as otherwise approved by the Ohio EPA, Northeast District Office. 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

If required, 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:

If required, 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> |
|---|---|--|
|---|---|--|

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 baghouse | OAC rule 3745-17-07(A)(1) | Visible particulate emissions from any stack shall not exceed 20% opacity as a six-minute average, except as provided by rule. |
| | OAC rule 3745-17-11 | PE: 7.06 pounds per hour (See Section A.1.2.a.) |
| | OAC rule 3745-17-07(B)(1) | See section A.1.2.b. below |
| | OAC rule 3745-17-08 (B) | See section A.1.2.c. below |

2. Additional Terms and Conditions

- 2.a The particulate emission limitation of 7.06 lbs/hr was determined from Figure II of OAC rule 3745-17-11 based on calculated uncontrolled mass emission rate of 48.26 lbs/hr using the July 29, 1985 stack emission test and the manufacturer's design, collection and capture efficiencies.
- 2.b Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity as a three-minute average, except as provided by rule. 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, 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 2 to 10 inches of water while the emissions unit is in operation. The pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure differential range as a result of bag replacements.

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 weekly checks for any visible fugitive particulate emissions, when the weather conditions allow, from the egress points (i.e., building windows, doors, roof monitors, etc.) of the building housing this emissions unit. This weekly check shall be performed at a time that is representative of the typical activity of the several operations housed within this building (regardless of whether this specific unit is in operation). 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 weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse was not within the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all weeks 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 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 weeks 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 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):

- 1.a Emission Limitations:

7.06 lbs of PE per hour

Applicable Compliance Method:

Within 6 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 or near maximum capacity, unless otherwise approved by the Ohio EPA, Northeast District Office. 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:

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

Applicable Compliance Method:

If required, 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:

If required, 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> |
|---|---|--|
|---|---|--|

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 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. and e.) |
| | OAC rule 3745-18-06(E) | SO ₂ : 1,678 lbs/hr (See Section A.I.2.f.) |

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, except as provided by rule. 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. Additional Terms and Conditions (continued)

- 2.d** The particulate emission limitation of 66.49 lbs/hr was determined based on the PWR of 812,000 lbs/hr using Table I of OAC rule 3745-17-11.
- 2.e** 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.f** It is assumed that the potential to emit for sulfur dioxide is well below the allowable emission rate; therefore, it is not necessary to establish monitoring, record keeping, and reporting requirements to ensure ongoing compliance.

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. The pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure differential range as a result of bag replacements.

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 weekly checks for any visible fugitive particulate emissions, when the weather conditions allow, from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. This weekly check shall be performed at a time that is representative of the typical activity of the several operations housed within this building (regardless of whether this specific unit is in operation). 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)

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

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 was not within 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 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 minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month 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 Limitations:

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

Applicable Compliance Method:

Within 6 months after the issuance 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. If it is infeasible to test the inlet stack emission rate, the permittee shall use the design efficiency of the baghouse to calculate the uncontrolled mass emission rate. 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 or near maximum capacity, unless otherwise approved by the Ohio EPA, Northeast District Office. 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).

V. Testing Requirements (continued)

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:

If required, 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:

If required, 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.d Emission Limitation:

1,678 pounds of SO₂ per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission rate in accordance with 40 CFR Part 60, Appendix A, Methods 6 or 6C and the procedures in OAC rule 3745-18-04.

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> |
|---|---|--|
|---|---|--|

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 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) | 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: 2.59 lbs per hour (See Section A.I.2.d.) |

2. Additional Terms and Conditions

- 2.a Visible particulate emissions 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, except as provided by rule. 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. Additional Terms and Conditions (continued)

- 2.d The particulate emission limitation of 2.59 lbs/hr was determined based on the uncontrolled mass emission rate of 12.93 lbs/hr from Figure II of OAC rule 3745-17-11. The uncontrolled mass emission rate of 12.93 lbs/hr was determined and submitted by the company as supporting document (Appendix A) to their Permit-to-Operate renewal application for this emissions unit dated June 14, 1993.

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. The pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure differential range as a result of bag replacements.

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 weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- the 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.
3. The permittee shall perform weekly checks, when either P060 or P061 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 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 was not within 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.
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:

2.59 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, except as provided by rule.

Applicable Compliance Method:

If required, 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:

If required, 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> |
|---|---|--|
|---|---|--|

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 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) | 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: 2.59 lbs per hour (See Section A.I.2.d.) |

2. Additional Terms and Conditions

- 2.a Visible particulate emissions 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, except as provided by rule. 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. Additional Terms and Conditions (continued)

- 2.d The particulate emission limitation of 2.59 lbs/hr was determined based on the uncontrolled mass emission rate of 12.93 lbs/hr from Figure II of OAC rule 3745-17-11. The uncontrolled mass emission rate of 12.93 lbs/hr was determined and submitted by the company as supporting document (Appendix A) to their Permit-to-Operate renewal application for this emissions unit dated June 14, 1993.

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. The pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure differential range as a result of bag replacements.

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 weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- the 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.
3. The permittee shall perform weekly checks, when either P060 or P061 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 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 was not within 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.
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:

2.59 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, except as provided by rule.

Applicable Compliance Method:

If required, 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:

If required, 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> |
|---|---|--|
|---|---|--|

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 grinder equipped with a 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 3745-17-07(B)(1) | See Section A.I.2.a. below. |
| | OAC rule 3745-17-07(A)(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: 27.15 lbs/hr (See A.I.2.d. and e.) |

2. Additional Terms and Conditions

- 2.a Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average, except as provided by rule. 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 Visible particulate emissions from any stack shall not exceed 20% opacity as a six-minute average, except as provided by rule.
- 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 The particulate emission limitation of 27.15 lbs/hr was determined based on the PWR of 33,600 lbs/hr using Table I of OAC rule 3745-17-11.

2. Additional Terms and Conditions (continued)

- 2.e 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 pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure differential range as a result of bag replacements.

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 weekly checks, when at least one or more of emissions units P062 and/or P078 is (are) in operation and when weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building openings) 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 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.

3. The permittee shall perform weekly checks, when this 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 was not within the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all weeks during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving P062 and/or P078 and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit semiannual written reports that (a) identify all weeks 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 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 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.b Emission Limitation:

20% opacity of visible particulate emissions as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, 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:

If required, 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)

2. Within 6 months after the issuance 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. If it is infeasible to test the inlet stack emission rate, the permittee shall use the design efficiency of the baghouse to calculate the uncontrolled mass emission rate. 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 or near maximum capacity, unless otherwise approved by the Ohio EPA, Northeast District Office.

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

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the test(s). 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.

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> |
|---|---|--|
|---|---|--|

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 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 0.01 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 pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure differential range as a result of bag replacements.

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 weekly checks for any visible fugitive particulate emissions, when the weather conditions allow, from the egress points (i.e., building windows, doors, roof monitors, etc.) of the building housing this emissions unit. This weekly check shall be performed at a time that is representative of the typical activity of the several operations housed within this building (regardless of whether this specific unit is in operation). 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)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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 pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse was not within the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all weeks 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 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 weeks 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 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 No. 1, No.2, No. 3, and No. 4 BP grinders are operating at or near maximum capacity, unless otherwise approved by the Ohio EPA, Northeast District Office. 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:

If required, 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:

If required, 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 Engineered Products**
Facility ID: **02-47-08-0229**
Emissions Unit: **No. 1 BP Grinder (P063)**

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> |
|---|---|--|
|---|---|--|

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 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 0.01 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 pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure differential range as a result of bag replacements.

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 weekly checks for any visible fugitive particulate emissions, when the weather conditions allow, from the egress points (i.e., building windows, doors, roof monitors, etc.) of the building housing this emissions unit. This weekly check shall be performed at a time that is representative of the typical activity of the several operations housed within this building (regardless of whether this specific unit is in operation). 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)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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 pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse was not within the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all weeks 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 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 weeks 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 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 No. 1, No.2, No. 3, and No. 4 BP grinders are operating at or near maximum capacity, unless otherwise approved by the Ohio EPA, Northeast District Office. 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:

If required, 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:

If required, 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 Engineered Products**
Facility ID: **02-47-08-0229**
Emissions Unit: **No. 2 BP Grinder (P064)**

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> |
|---|---|--|
|---|---|--|

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 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 0.01 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 pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure differential range as a result of bag replacements.

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 weekly checks for any visible fugitive particulate emissions, when the weather conditions allow, from the egress points (i.e., building windows, doors, roof monitors, etc.) of the building housing this emissions unit. This weekly check shall be performed at a time that is representative of the typical activity of the several operations housed within this building (regardless of whether this specific unit is in operation). 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)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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 pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse was not within the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all weeks 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 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 weeks 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 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 No. 1, No.2, No. 3, and No. 4 BP grinders are operating at or near maximum capacity, unless otherwise approved by the Ohio EPA, Northeast District Office. 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:

If required, 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:

If required, 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 Engineered Products**
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> |
|---|---|--|
|---|---|--|

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 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 0.01 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 pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure differential range as a result of bag replacements.

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 weekly checks for any visible fugitive particulate emissions, when the weather conditions allow, from the egress points (i.e., building windows, doors, roof monitors, etc.) of the building housing this emissions unit. This weekly check shall be performed at a time that is representative of the typical activity of the several operations housed within this building (regardless of whether this specific unit is in operation). 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)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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 pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse was not within the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all weeks 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 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 weeks 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 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 No. 1, No.2 , No. 3, and No. 4 BP grinders are operating at or near maximum capacity, unless otherwise approved by the Ohio EPA, Northeast District Office. 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:

If required, 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:

If required, 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 Engineered Products**
Facility ID: **02-47-08-0229**
Emissions Unit: **No. 4 BP Grinder (P066)**

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> |
|---|---|--|
|---|---|--|

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

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

| <u>Operations, Property, and/or Equipment</u> | <u>Applicable Rules/ Requirements</u> | <u>Applicable Emissions Limitations/Control Measures</u> |
|---|---|---|
| No. 1 LMF equipped with a 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) | 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 | 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 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, except as provided by rule. 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 12 inches of water while the emissions unit is in operation. The pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure differential range as a result of bag replacements.

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 weekly checks, when at least one or more of emissions units P067 and/or F010 is (are) in operation, for any visible fugitive particulate emissions from the egress points (i.e., building openings) 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 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.

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

3. The permittee shall perform weekly checks, when this 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 pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse was not within the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all weeks during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving P067 and/or F010 and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit semiannual written reports that (a) identify all weeks 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 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):

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 12 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 or near 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 shall not exceed 20% opacity as a 6-minute average.

Applicable Compliance Method:

If required, 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:

If required, 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> |
|---|---|--|
|---|---|--|

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 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, except as provided by rule. |
| | 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, except as provided by rule. 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 1 to 6 inches of water while the emissions unit is in operation. The pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure differential range as a result of bag replacements.

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

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

3. The permittee shall perform weekly checks for any visible fugitive particulate emissions, when the weather conditions allow, from the egress points (i.e., building windows, doors, roof monitors, etc.) of the building housing this emissions unit. This weekly check shall be performed at a time that is representative of the typical activity of the several operations housed within this building (regardless of whether this specific unit is in operation). 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 was not within the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all weeks 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 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 weeks 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 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):

V. Testing Requirements (continued)

1.a Emission Limitation:

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

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:

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:

If required, 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:

If required, 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> |
|---|---|--|
|---|---|--|

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 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.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. 02-6920.

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 quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.
2. 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:

1.a Emission Limitation: 0.15 lb of NO_x per MMBtu

Applicable Compliance Method:

The permittee shall conduct, or have conducted, annual 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 or near a high fire condition rate only, unless otherwise approved by the Ohio EPA, Northeast District Office.

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

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the test(s). 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 SO₂ per MMBtu of actual heat input

Applicable Compliance Method:

Compliance shall be determined by dividing the emission factor of 0.60 pound of SO₂ 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 or near maximum capacity.

Facility Name: **Republic Engineered Products**
Facility ID: **02-47-08-0229**
Emissions Unit: **10" Walking Beam Furnace (P071)**

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> |
|---|---|--|
|---|---|--|

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 |
| | | 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. |
| | 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) | 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 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. Additional Terms and Conditions (continued)

- 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. 02-7273.

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 quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.
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 31, April 30, July 31 and October 31 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_x per hour

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 360.50 lbs of NO_x 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_x 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 a high fire condition rate only, unless otherwise approved by the Ohio EPA, Northeast District Office.

V. Testing Requirements (continued)

1.b Emission Limitation:

0.14 lb of PE/PM10 per hour

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 1.9 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 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 a high fire condition rate only, unless otherwise approved by the Ohio EPA, Northeast District Office.

1.c Emission Limitation:

0.03 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 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 a high fire condition rate only, unless otherwise approved by the Ohio EPA, Northeast District Office.

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 a high fire condition rate only, unless otherwise approved by the Ohio EPA, Northeast District Office.

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 or near a high fire condition rate only, unless otherwise approved by the Ohio EPA, Northeast District Office.

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:

If required, 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> |
|---|---|--|
|---|---|--|

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 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, except as provided by rule. 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 pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure differential range as a result of bag replacements.

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 a weekly basis.
2. The permittee shall perform weekly checks, when at least one or more of emissions units P062 and/or P078 is (are) in operation and when weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building openings) 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 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.

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

3. The permittee shall perform weekly checks, when this 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 was not within the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all weeks during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving P062 and/or P078 and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit semiannual written reports that (a) identify all weeks during which any visible particulate emissions were observed from the stack serving serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month 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:

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 emission test for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for particulates. 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 or near maximum capacity, unless otherwise approved by the Ohio EPA, Northeast District Office.

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

V. Testing Requirements (continued)

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:

If required 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:

If required, 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> |
|---|---|--|
|---|---|--|

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 baghouse, and No. 2 LMF bulk alloy handling and No. 2 LMF alloy unloading, each of which is equipped with a baghouse. | OAC rule 3745-31-05(A)(3) PTI No. 02-11888 | 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.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. Additional Terms and Conditions (continued)

- 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 to 6 inches of water while the emissions unit is in operation. The pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure differential range as a result of bag replacements.

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 to 5 inches of water while the emissions unit is in operation. The pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure differential range as a result of bag replacements.

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 2 to 12 inches of water while the emissions unit is in operation. The pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure differential range as a result of bag replacements.
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 to 1,200,000 tons per year, based upon a rolling 365-day summation.

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 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 continue to implement an 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.

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

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.
8. 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.
9. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from 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.
10. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the 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 was not within the allowable ranges specified above.
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 or baghouse, that was to be performed as a result of an inspection, was not performed.
5. The permittee shall submit the quarterly deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.

IV. Reporting Requirements (continued)

6. 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 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 emission 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 or near maximum capacity, unless otherwise approved by the Ohio EPA, Northeast District Office. 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 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 6 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 or near maximum capacity, unless otherwise approved by the Ohio EPA, Northeast District Office. 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 Limitations:

0.0052 grain of particulate emissions per dry standard cubic foot of exhaust gases (No. 2 LMF alloy unloading)

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).

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):

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

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

60 = 60 minutes per hour

No. 2 LMF alloy handling (stack emissions):

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

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

60 = 60 minutes per hour

No. 2 LMF alloy unloading (stack emissions):

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

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

60 = 60 minutes per hour

No. 2 ladle arc furnace (fugitive emissions):

$$E = A*B*(1-.99)*(1/C)*(60)$$

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 = maximum weight per heat, 220 tons/heat

C = duration of operation, 55 minutes/heat

.99 = fractional estimated capture efficiency

60 = 60 minutes per hour

V. Testing Requirements (continued)

No. 2 LMF alloy handling (fugitive emissions):
 $E = A * B * (1 - .99) * (1 / C) * (60)$

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 = Maximum weight per heat, 220 tons/heat

C = duration of operation, 55 minutes/heat

.99 = fractional estimated capture efficiency

60 = 60 minutes per hour

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):

$$E = (A) \cdot (B) \cdot (1 / C) \cdot (D) \cdot (F) / (2000)$$

where:

E = No. 2 ladle arc furnace particulate emissions, in ton/yr

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 = 2000 lbs/ton

No. 2 LMF alloy handling (stack emissions):

$$E = (A) \cdot (B) \cdot (1 / C) \cdot (D) \cdot (F) / (2000)$$

where:

E = alloy handling particulate emissions, in ton/yr

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 = 2000 lbs per ton

No. 2 LMF alloy unloading (stack emissions):

$$E = (A) \cdot (B) \cdot (1 / C) \cdot (D) \cdot (F) / (2000)$$

where:

E = alloy unloading particulate emissions, in ton/yr

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 = 2000 lbs/ton

No. 2 ladle arc furnace (fugitive emissions):

$$E = A \cdot B \cdot (1 - .99) / 2000$$

where:

E = No. 2 ladle arc furnace fugitive emissions, in ton/yr

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 = fractional estimated capture efficiency

2000 = 2000 lbs/ton

No. 2 LMF alloy handling (fugitive emissions):

$$E = A * B * (1 - .99) / 2000$$

where:

E = No. 2 LMF alloy handling fugitive emissions, in ton/yr

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 = fractional estimated capture efficiency

2000 = 2000 lbs/ton

No. 2 LMF alloy unloading (fugitive emissions):

$$E = A * B * C * (1 - .99) * (1/60) / 2000$$

where:

E = No. 2 LMF alloy unloading fugitive emissions, in ton/yr

A = uncontrolled mass emission rate, 27 lbs of PE/hr (calculated emission rate by company)

B = duration of operation, 1.1 mins/heat

C = number of heats per year

.99 = fractional estimated capture efficiency

2000 = 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):

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

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

60 = 60 minutes per hour

100% of PE is PM10 (company's estimation)

No. 2 LMF alloy handling (stack emissions):

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

where:

E = alloy handling 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

60 = 60 minutes per hour

100% of PE is PM10 (company's estimation)

No. 2 LMF alloy unloading (stack emissions):

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

where:

E = alloy unloading 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

60 = 60 minutes per hour

100% of PE is PM10 (company's estimation)

No. 2 ladle arc furnace (fugitive emissions):

$$E = A*B*(1-.99)*(.58)*(1/C)*(60)$$

where:

E = No. 2 ladle arc furnace fugitive PM10 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 = maximum weight per heat, 220 tons/heat

C = duration of operation, 55 minutes/heat

.99 = estimated capture efficiency

.58 = fraction of PE that is PM10 (company's estimation)

60 = 60 minutes per hour

V. Testing Requirements (continued)

No. 2 LMF alloy handling (fugitive emissions):

$$E = A * B * (1 - .99) * (.50) * (1/C) * (60)$$

where:

E = No. 2 LMF alloy handling fugitive PM 10 emissions, in lb/hr

A = uncontrolled mass emission rate, 0.1414 lb of PE/ton of steel produced (calculated emission factor by company)

B = maximum weight per heat, 220 tons/heat

C = duration of operation, 55 minutes/heat

.99 = estimated capture efficiency

.50 = fraction of PE that is PM10 (company's estimation)

60 = 60 minutes per hour

No. 2 LMF alloy unloading (fugitive emissions):

$$E = A * (1 - .99) * (.50)$$

where:

E = No. 2 LMF alloy unloading fugitive PM10 emissions, in lb/hr

A = uncontrolled mass emission rate, 27 lbs of PE/hr (calculated emission rate by company)

.99 = estimated capture efficiency

.50 = fraction of PE that 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):

$$E = (A)*(B)*(1/C)*(D)*(F) / 2000$$

where:

E = No. 2 ladle arc furnace PM10 emissions, in ton/yr

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 = 2000 lbs/ton

100% of PE is PM10 (company's estimation)

No. 2 LMF alloy handling (stack emissions):

$$E = (A)*(B)*(1/C)*(D)*(F) / 2000$$

where:

E = alloy handling PM10 emissions, in ton/yr

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 = 2000 lbs per ton

100% of PE is PM10 (company's estimation)

No. 2 LMF alloy unloading (stack emissions):

$$E = (A)*(B)*(1/C)*(D)*(F) / 2000$$

where:

E = alloy unloading PM10 emissions, in ton/yr

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 = 2000 lbs per ton

100% of PE is PM10 (company's estimation)

V. Testing Requirements (continued)

No. 2 ladle arc furnace (fugitive emissions):

$$E = A * B * (1 - .99) * (.58) / 2000$$

where:

E = No. 2 ladle arc furnace fugitive PM10 emissions, in tons/yr

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 = fractional estimated capture efficiency

.58 = fraction of PE that is PM10 (company's estimation)

2000 = 2000 lbs/ton

No. 2 LMF alloy handling (fugitive emissions):

$$E = A * B * (1 - .99) * (.50) / 2000$$

where:

E = No. 2 LMF alloy handling fugitive PM10 emissions, in ton/yr

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 = fractional estimated capture efficiency

.50 = fraction of PE that is PM10 (company's estimation)

2000 = 2000 lbs/ton

No. 2 LMF alloy unloading (fugitive emissions):

$$E = A * B * C * (1 - .99) * (1/60) / 2000$$

where:

E = No. 2 LMF alloy unloading fugitive PM10 emissions, in ton/yr

A = uncontrolled mass emission rate, 27 lbs of PE/hr (calculated emission rate by company)

B = duration of operation, 1.1 mins/heat

C = number of heats per year

.99 = fractional estimated capture efficiency

2000 = 2000 lbs/ton

.50 = fraction of PE that is PM10 (company's estimation)

60 = 60 minutes per hour

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 or near 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:

$$E = (A)*(B)*(C) / 2000$$

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 = 2000 lbs/ton

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:

If required, 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:

If required, 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:

If required, 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:

If required, 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:

If required, 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> |
|---|---|--|
|---|---|--|

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 ₂ : 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 NOx 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 quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.
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 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):

1.a Emission Limitation:

0.132 pound of nitrogen oxides per MMBtu

Applicable Compliance Method:

The permittee shall conduct, or have conducted, annual 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 or near a high fire condition rate only, unless otherwise approved by the Ohio EPA, Northeast District Office.

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

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

Facility Name: **Republic Engineered Products**

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

Emissions Unit: **Bloom Reheat Furnace (P081)**

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> |
|---|---|--|
|---|---|--|

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 vacuum tank type 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: 8.3 lbs per hour (based upon Figure II) |

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, operation of a vacuum ejector while degassing 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. When this unit is operating, pilot flame shall be maintained at all times in the flare's pilot light burner.
2. 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 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 when the emissions unit was in operation.

2. The permittee shall record each day all periods during which the steam ejectors were not functioning when the emissions unit was in operation.
3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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 during which the pilot flame was not functioning properly when the emissions unit was in operation. 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 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 when the emissions unit was in operation.
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 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 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:

Stack test methods are not available to sample CO emissions after the natural gas fired flare/CO burner. Therefore, compliance with the CO emissions limitation and the requirement for 98% by weight CO emissions reduction, as specified in PTI No. 02-7768, shall be based upon flare design.

1.b Emission Limitation:

8.3 lbs/hr of PE

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:

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

Applicable Compliance Method:

If required, 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:

If required, 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> |
|---|---|--|
|---|---|--|

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 | See Section A.I.2.a. through A.I.2.c. below. |
| | 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) OAC rule 3745-17-11 | See Section A.I.2.d. below. 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 Particulate emission from the baghouse stack shall not exceed 0.01 grain of particulate emissions per dry standard cubic foot of exhaust gases.
- 2.b Visible particulate emissions from any stack shall not exceed 5% opacity as a six-minute average, except as provided by rule.
- 2.c Visible particulate emissions of fugitive dust from the pig iron casting machine shall not exceed 5% opacity as a 6-minute average.

2. Additional Terms and Conditions (continued)

2.d 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.

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. The pressure drop across the baghouse serving this emissions unit shall be maintained within the range of 4 to 7 inches of water while the emissions unit is in operation. The pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure differential range as a result of bag replacements.

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 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 maintain records of the daily and 365-day summations of the pig iron production.
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 installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly basis.
3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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.

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

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building openings) 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 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 pig iron production limitation.
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 was not within the allowable range specified above.
3. The permittee shall submit semiannual written reports that (a) identify all weeks 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 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 weeks 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 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 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 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 Limitations:

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 emission test for this emission 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 or near maximum capacity, unless otherwise approved by the Ohio EPA, Northeast District Office. 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 the pig iron casting machine baghouse stack shall not exceed 5% opacity as a 6-minute average.

Applicable Compliance Method:

If required, 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 from the pig iron casting machine shall not exceed 5% opacity as a 6-minute average.

Applicable Compliance Method:

If required, 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> |
|---|---|--|
|---|---|--|

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 ₂ : 0.007 lb/hr NO _x : 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, except as provided by rule. 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.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emission unit.

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:

0.072 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 SO₂ per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 0.60 pound of SO₂ 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.c Emissions Limitation:

1.631 pounds of NO_x per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 100 pounds of NO_x 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.

1.f Emission Limitation:

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

Applicable Compliance Method:

If required, 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> |
|---|---|--|
|---|---|--|

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 ₂ : 0.007 lb/hr NO _x : 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, except as provided by rule. 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.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emission unit.

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:

0.072 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 SO₂ per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 0.60 pound of SO₂ 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.c Emissions Limitation:

1.631 pounds of NO_x per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 100 pounds of NO_x 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.

1.f Emission Limitation:

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

Applicable Compliance Method:

If required, 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> |
|---|---|--|
|---|---|--|

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 ₂ : 0.007 lb/hr NO _x : 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, except as provided by rule. 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.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emission unit.

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:

0.072 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 SO₂ per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 0.60 pound of SO₂ 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.c Emissions Limitation:

1.631 pounds of NO_x per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 100 pounds of NO_x 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.

1.f Emission Limitation:

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

Applicable Compliance Method:

If required, 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> |
|---|---|--|
|---|---|--|

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 ₂ : 0.007 lb/hr NO _x : 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, except as provided by rule. 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.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emission unit.

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:

0.072 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 SO₂ per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 0.60 pound of SO₂ 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.c Emissions Limitation:

1.631 pounds of NO_x per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 100 pounds of NO_x 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.

1.f Emission Limitation:

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

Applicable Compliance Method:

If required, 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> |
|---|---|--|
|---|---|--|

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 ₂ : 0.007 lb/hr NO _x : 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, except as provided by rule. 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.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emission unit.

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:

0.072 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 SO₂ per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 0.60 pound of SO₂ 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.c Emissions Limitation:

1.631 pounds of NO_x per hour

Applicable Compliance Method:

Compliance may be determined by dividing the emission factor of 100 pounds of NO_x 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.

1.f Emission Limitation:

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

Applicable Compliance Method:

If required, 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> |
|---|---|--|
|---|---|--|

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 Davy cone wet scrubber system to control top gas emissions and a 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. |
| | 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) and OAC rule 3745-17-08(B). |
| | OAC rule 3745-17-07(B)(3) | See Sections A.I.2.f and g below. |
| | 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.h 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). SO ₂ 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 stoves stack shall not exceed 0.003 grain of particulate emissions per dry standard cubic foot of exhaust gases.

2. Additional Terms and Conditions (continued)

- 2.b** Ohio EPA issued PTI No. 02-5573 on August 20, 1991, for the No. 3 Blast Furnace Modification Project, which included a stove stack CO limit of 0.044 grains CO per standard cubic of waste gas. U.S. EPA objected to this PTI and entered into a Consent Decree, Civil Action No. 1:92 CV1928 (January 13, 1993, amended February 23, 1999) with the previous owner of this facility, USS/Kobe Steel Company, to resolve certain permit issues. The Consent Decree, as amended, included a procedure for revising the CO limit in PTI No. 02-5573 based upon the CO emission level used in the revised netting analysis.

In accordance with the Consent Decree, Republic Technologies International (RTI), the owner at the time that the revised CO netting analysis was approved by U.S.EPA, submitted a request that the PTI No. 02-5573 be modified to, among other things, establish a new CO limit for the No. 3 Blast Furnace consistent with that netting analysis. Until a PTI modification is issued and effective, the existing PTI No. 02-5573 CO limit of 0.044 grains per scf of waste gas is not a federally enforceable applicable requirement.

- 2.c** The NOx emissions from the No. 3 blast furnace stoves stack shall not exceed 0.087 grain per standard cubic foot of waste gas.
- 2.d** The particulate emissions from the baghouse stacks 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 attributable to oxygen lancing shall be excluded provided all reasonable steps have been taken to minimize the use of oxygen lancing and a record of each lancing operation is maintained. 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 stoves stack 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 each taphole in the hearth of the furnace, skimmer, dam and tilting spout of each tophole runner system, and venting of the particulate emissions to the baghouse; and
 - ii. utilization of runner covers to suppress emissions from a major portion of the trough not hooded.

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 SO₂ emissions are required because, based on Table 1 of Chapter 14, Blast Furnace, Air Pollution Engineering Manual (version 1992), the SO₂ 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 1 to 7 inches of water while the emissions unit is in operation. The pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure differential range as a result of bag replacements.

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 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 operation.
3. PTI No. 02-5573 indicates that 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. PTI 02-9296 for the pig iron machine supersedes this requirement.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain equipment to continuously monitor 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 scrubber water flow rate, in gallons per minute, on a once per shift basis.

2. The permittee shall record the time periods when the capture (collection) system, control device, and/or monitoring equipment was (were) out of service when the emissions unit was in operation.
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. The permittee shall maintain monthly records of the total iron production from this emissions unit.

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

5. 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 section A.1.2.e. The readings shall be performed for three consecutive daylight casts each 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. 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.
- 6.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse 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 scrubber water flow rate was not maintained at or above the required level.
- 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 was not within the allowable range specified above.

IV. Reporting Requirements (continued)

3. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time when the capture (collection) system, control device, and/or monitoring equipment was (were) out of service when the emissions unit was in operation.
4. 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 calendar months. The reports shall be submitted by January 31, April 30, July 31, and October 31 of each year.
5. 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 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarter.
6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse 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.
7. The permittee shall submit the required quarterly deviation (excursion) reports in accordance with Part I - General Terms and Conditions Section A.1.c.
8. Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install # 02-5573, issued on August 20, 1991: Section A.IV.4 and Section A.IV.5. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

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:

0.003 grain of particulate emissions per dry standard cubic foot of exhaust gases from the stoves stack.

Applicable Compliance Method:

Within 6 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 or near maximum capacity, unless otherwise approved by the Ohio EPA, Northeast District Office. 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 stoves stack shall not exceed 0.044 grain per standard cubic foot of waste gas.

Applicable Compliance Method:

See Section A.I.2.b, A.VI.1, and B.I.2.a of this permit.

V. Testing Requirements (continued)

1.c Emission Limitations:

NO_x emissions from No. 3 blast furnace stoves stack shall not exceed 0.087 grain per standard cubic foot of waste gas.

Applicable Compliance Method:

Within 6 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 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 or near maximum capacity, unless otherwise approved by the Ohio EPA, Northeast District Office. 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 stacks).

Applicable Compliance Method:

Within 6 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 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 or near maximum capacity, unless otherwise approved by the Ohio EPA, Northeast District Office. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9. See Section A.V.I.i. below.

1.e Emission Limitations:

SO₂ emissions from the No. 3 blast furnace stoves stack shall not exceed 1.98 lbs per MMBtu of actual heat input.

Applicable Compliance Method:

If required, 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 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 or near maximum capacity.

1.f Emission Limitation:

Visible fugitive particulate emissions from the casthouse shall not exceed 15% opacity as a six-minute rolling average basis.

Applicable Compliance Method:

If required, 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.g Emission Limitation:

Visible emissions from the casthouse baghouse stack shall not exceed 20% opacity as a 6-minute average

Applicable Compliance Method:

If required, 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:

If required, 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.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. As a supplement to the pending request for a PTI modification submitted by the previous owner of this emissions unit, the permittee shall submit a permit-to-install modification application within three months after the effective date of this permit. This PTI modification application shall include a proposed CO limitation for the No. 3 Blast Furnace stoves based upon the CO emission level used in the revised Netting Analysis under the Consent Decree, U.S. v. USS/Kobe Steel Company, Civil Action No. 1:92CV1928 (first Amendment to modify Consent Decree)(January 13, 1993 amended February 23, 1999).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

| <u>Operations, Property, and/or Equipment</u> | <u>Applicable Rules/ Requirements</u> | <u>Applicable Emissions Limitations/Control Measures</u> |
|---|--|--|
| No. 3 blast furnace, equipped with a Davy cone wet scrubber system to control top gas emissions and a baghouse to control emissions during casting operations | OAC rule 3745-31-05(A)(3) PTI No. 02-5573 | See sections B.I.2.a below. |

2. Additional Terms and Conditions

- 2.a The CO emissions limit in PTI No. 02-5573 for the No. 3 blast furnace stoves stack is 0.044 grains per standard cubic foot of waste gas. This CO limit was based on the incorrect assumption that the emissions from the stoves stack consisted of combusted blast furnace gas only. It was later determined that some raw blast furnace gas was also being emitted from the blast furnace stoves stack, which increased CO emissions significantly. As a supplement to the pending request for a PTI modification submitted by the prior owner of this emissions unit, which proposes a revised CO limit, the permittee will be submitting a formal application request. Ohio EPA will not enforce the existing 0.044 grains/scf CO emissions limit in PTI 02-5573, provided that such application is submitted in accordance within section A.VI.1. above.

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

- 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: 50.51 pounds per hour (based upon Table I) |
| | OAC rule 3745-18-53(D)(4) | SO ₂ emissions from stove stack shall not exceed 1.98 lbs per MMBtu of actual heat input. |

2. Additional Terms and Conditions

- Visible particulate emissions from the stoves stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
- Visible fugitive particulate emissions from the blast furnace casthouse shall not exceed 20% opacity as a six-minute average, except as provided by rule.

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 at the trough over the iron notch and elsewhere along the iron trough as necessary to minimize or eliminate visible emissions during casting; and
 - ii. 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 SO₂ emissions are required because, based on Table 1 of Chapter 14, Blast Furnace, Air Pollution Engineering Manual (version 1992), the SO₂ emissions from the blast furnace gas are well below the allowable.

II. Operational Restrictions

1. The scrubber water flow rate shall be continuously maintained at a value of not less than 2,000 gallons per minute at all times while the emissions unit is in operation (i.e., while the furnace is on blast).
2. The natural gas flame suppression system shall be employed at all times during casting operations.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain equipment to continuously monitor the scrubber water flow rate while the emissions unit is in operation (i.e., while the furnace is on blast). 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 scrubber water flow rate, in gallons per minute, on a once per shift basis.
- b. The time periods when the capture (collection) system, control device, and/or monitoring equipment was (were) out of service when the emissions unit was in operation.

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

2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the casthouse and charging operations. 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 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.

3. The permittee shall maintain daily records that document all time periods during casting operation when the flame suppression system was not operating properly, in accordance with good engineering practices.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the scrubber flow rate was not maintained at or above the required levels.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time when the flame suppression system was not operating properly during casting operations.
3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the casthouse and charging operations and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
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):

V. Testing Requirements (continued)

1.a Emission Limitations:

50.51 lbs of particulate emissions per hour from the stoves stack

Applicable Compliance Method:

Within 6 months after recommencing routine operation of this unit, 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. 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 or near maximum capacity. Opacity readings shall be taken throughout each emission test run in accordance with USEPA Method 9. See Section A.V.I.e. below.

1.b Emission Limitations:

SO₂ emissions from the stove stacks shall not exceed 1.98 lbs per MMBtu of actual heat input.

Applicable Compliance Method:

If required, 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 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 or near maximum capacity.

1.c Emission Limitation:

Visible emissions from the No. 4 blast furnace stoves stack shall not exceed 20% opacity as a 6-minute average

Applicable Compliance Method:

If required, 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:

If required, 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.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> |
|---|---|--|
|---|---|--|

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 and scrap by oxidizing carbon

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 baghouse as a secondary control system (secondary roof collection system), and associated operations, including reladling, ladle slag dumping (other than leaded steel) and ladle make-up (other than leaded steel) | 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: 63.0 lbs per hour (based on Table I) |

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 otherwise provided by rule.
- 2.b Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average, except as otherwise provided by rule. 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 from the BOP vessels to the scrubber system; 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. Additional Terms and Conditions (continued)

- 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 baghouse egress points, whichever is less stringent.

II. Operational Restrictions

1. The static pressure reading above the induced draft fan shall be continuously maintained at a value of not less than 45 inches of water at all times while the emissions unit is in operation.
2. The total system water flow rate (quencher, bull nozzle, and PA venturi) shall be continuously maintained at a value of not less than 2000 gallons per minute at all times while the emissions unit is in operation.
3. The static pressure at the inlet side of the secondary control baghouse shall be maintained within the range of 2 to 9 inches of water while the emissions unit is in operation. The static pressure shall not be considered outside the normal range when the static pressure falls below the minimum point in the pressure range as a result of bag replacements.

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

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain equipment to continuously monitor the static pressure and the total system water flow rate while the emissions unit is in operation. The monitoring devices 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 static pressure, in inches of water, on a once per shift basis.
 - b. The total system water flow rate, in gallons per minute, on a once per shift basis.
 - c. The time periods when the capture (collection) system, control device, and/or monitoring equipment was (were) out of service when the emissions unit was in operation.
2. The permittee shall properly operate and maintain equipment to monitor the static pressure at the inlet side of 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 static pressure at the inlet side of the baghouse on a daily basis.
 3. Visible particulate emission readings using USEPA test Method 9 shall be performed and recorded on the roof monitor while either P908 or P909 is in operation to monitor compliance with the visible emission requirements. The readings shall be performed for each week on a random basis for at least 15 consecutive minutes. The visible emission readings shall be performed by certified smoke readers only.
 4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse egress point 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 reading above the induced draft fan.
 - b. The total system water flow rate.
2. The permittee shall submit quarterly static pressure deviation (excursion) reports that identify that all periods of time during which the static pressure at the inlet side of the baghouse was not within the allowable range specified above.
3. The permittee shall submit quarterly summaries of the required visible particulate emission readings performed for the roof monitor during the BOP "L" vessel or "N" vessel operations. The reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarter.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse egress point 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.
5. 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

If required, 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 from the baghouse.

Applicable Compliance Method:

Within 6 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 the baghouse. The compliance test shall be conducted in accordance with the test methods and procedures specified in Method 5D of 40 CFR Part 60, Appendix A while BOP "L" vessel and/or BOP "N" vessel, is (are) operating at or near maximum capacity(ies), unless otherwise approved by the Ohio EPA, Northeast District Office. 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 Limitation:

63.0 lbs of PE per hour from the scrubber

Applicable Compliance Method:

Within 6 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 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 or near maximum capacity, unless otherwise approved by the Ohio EPA, Northeast District Office. 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.d Emission Limitation:

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

Applicable Compliance Method:

If required, 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> |
|---|---|--|
|---|---|--|

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 and scrap by oxidizing carbon

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 baghouse as a secondary control system (secondary roof collection system), and associated operations, including reladling, ladle slag dumping (other than leaded steel) and ladle make-up (other than leaded steel) | 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: 63.0 lbs per hour (based on Table I) |

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 otherwise provided by rule.
- 2.b Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average, except as otherwise provided by rule. 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 from the BOP vessels to the scrubber system; 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. Additional Terms and Conditions (continued)

- 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 baghouse egress points, whichever is less stringent.

II. Operational Restrictions

1. The static pressure reading above the induced draft fan shall be continuously maintained at a value of not less than 45 inches of water at all times while the emissions unit is in operation.
2. The total system water flow rate (quencher, bull nozzle, and PA venturi) shall be continuously maintained at a value of not less than 2000 gallons per minute at all times while the emissions unit is in operation.
3. The static pressure at the inlet side of the secondary control baghouse shall be maintained within the range of 2 to 9 inches of water while the emissions unit is in operation. The static pressure shall not be considered outside the normal range when the static pressure falls below the minimum point in the pressure range as a result of bag replacements.

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

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain equipment to continuously monitor the static pressure and the total system water flow rate while the emissions unit is in operation. The monitoring devices 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 static pressure, in inches of water, on a once per shift basis.
 - b. The total system water flow rate, in gallons per minute, on a once per shift basis.
 - c. The time periods when the capture (collection) system, control device, and/or monitoring equipment was (were) out of service when the emissions unit was in operation.
2. The permittee shall properly operate and maintain equipment to monitor the static pressure at the inlet side of 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 static pressure at the inlet side of the baghouse on a daily basis.
 3. Visible particulate emission readings using USEPA test Method 9 shall be performed and recorded on the roof monitor while either P908 or P909 is in operation to monitor compliance with the visible emission requirements. The readings shall be performed for each week on a random basis for at least 15 consecutive minutes. The visible emission readings shall be performed by certified smoke readers only.
 4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse egress point 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 reading above the induced draft fan.
 - b. The total system water flow rate.
2. The permittee shall submit quarterly static pressure deviation (excursion) reports that identify that all periods of time during which the static pressure at the inlet side of the baghouse was not within the allowable range specified above.
3. The permittee shall submit quarterly summaries of the required visible particulate emission readings performed for the roof monitor during the BOP "L" vessel or "N" vessel operations. The reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarter.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse egress point 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.
5. 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

If required, 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 from the baghouse.

Applicable Compliance Method:

Within 6 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 the baghouse. The compliance test shall be conducted in accordance with the test methods and procedures specified in Method 5D of 40 CFR Part 60, Appendix A while BOP "L" vessel and/or BOP "N" vessel, is (are) operating at or near maximum capacity(ies), unless otherwise approved by the Ohio EPA, Northeast District Office. 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 Limitation:

63.0 lbs of PE per hour from the scrubber

Applicable Compliance Method:

Within 6 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 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 or near maximum capacity, unless otherwise approved by the Ohio EPA, Northeast District Office. 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.d Emission Limitation:

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

Applicable Compliance Method:

If required, 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> |
|---|---|--|
|---|---|--|

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 and raw material storage and 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, except as provided by rule. |
| | 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.I.2.a. |
| | OAC rule 3745-17-08(B) | See Section A.I.2.b. and c. below. |
| | OAC rule 3745-17-11 | PE: 30.56 lbs per hour (based upon Figure II). See Section A.I.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 has agreed to consider the 20% 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 3745-17-07(B) and 3745-17-08(B):

- i. Synthetic slag ladle addition operation, equipped with a baghouse.
- ii. Synthetic slag material handling operation, equipped with a 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.

The uncontrolled fugitive emissions from the synthetic slag ladle addition operation is controlled by the baghouse for the secondary emissions from the BOP shop.

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 their respective baghouses:

- i. flux transfer tower, equipped with a baghouse.
- ii. east material handling operation, equipped with a baghouse.
- iii. west material handling operation, equipped with a baghouse.
- iv. flux unloading operation, equipped with a baghouse.

The uncontrolled fugitive emissions from the east and west material handling operations are controlled by the baghouse for the secondary emissions from the BOP shop.

II. Operational Restrictions

1. The pressure drop across the flux transfer tower baghouse shall be maintained within the range of 1 to 6 inches of water while the emissions unit is in operation.
2. The pressure drop across the east material handling baghouse shall be maintained within the range of 1 to 8 inches of water while the emissions unit is in operation.
3. The pressure drop across the west material handling baghouse shall be maintained within the range of 1 to 7 inches of water while the emissions unit is in operation.
4. The pressure drop across the flux unloading baghouse shall be maintained within the range of 1 to 4 inches of water while the emissions unit is in operation.
5. The pressure drop across the synthetic slag ladle addition baghouse shall be maintained within the range of 1 to 7 inches of water while the emissions unit is in operation.
6. The pressure drop across the synthetic slag material handling 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 a weekly basis.

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

2. The permittee shall perform weekly checks, when the equipment is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the flux transfer tower and flux unloading operation. 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. Except for the east and west material handling baghouses, the permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from each of the baghouse stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
4. Except for the flux transfer tower and flux unloading operations, the equipment associated with this emissions unit are located within the BOP shop and the visible emission monitoring and record keeping requirements for the BOP shop roof monitor as specified in emissions units P908 and P909, are sufficient to demonstrate ongoing compliance with the visible emission limitation for this equipment.

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 was not within 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 flux transfer tower and flux unloading operation 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 baghouse 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.
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:

If required, 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:

If required, 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:

30.56 lbs of PE per hour (see Section A.I.2.d.)

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the test methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:

0.030 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 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 or near maximum capacity, unless otherwise approved by the Ohio EPA, Northeast District Office. 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> |
|---|---|--|
|---|---|--|

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

THIS IS THE LAST PAGE OF THE PERMIT
