OhioEPA

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

07/27/01

**CERTIFIED MAIL**

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

02-50-11-0625
North Star Steel Ohio
Jeff Bindas
2669 Martin Luther King Jr. Blvd
Youngstown, OH 44510

Dear Jeff Bindas:

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,

Thomas G. Rigo

Thomas G. Rigo, Manager
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: **07/27/01** | Effective Date: **07/27/01** | Expiration Date: **07/27/06** |
|---|---|---|

This document constitutes issuance of a Title V permit for Facility ID: 02-50-11-0625 to:
North Star Steel Ohio
2669 Martin Luther King Jr. Blvd.
Youngstown, OH 44510

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

F001 (Roadways & parking)
Vehicle traffic and parking

F003 (Caster)
Casts molten steel from the EAFs into solid round billets

F004 (Dust Handling)
Handles EAF dust collected in the 4-unit baghouse that serves both EAFs; and dust from cyclone

P001 (Billet reheat furnace)
Reheats Billets

P002 (Pipe Mill)
Rolls steel billets into seamless pipe

P004 (Plasma Arc Torch Cutting Equipment)
Torch to cut ends of pipe at mandrill pipe mill.

P005 (Ladle Preheater 1)
Maintains ladle refractory temperature

P006 (Ladle Preheater 2)
Maintains ladle refractory temperature

P007 (Modified Cooling Tower)
Contact water cooling tower

P905 (Electric Arc Furnace)
An EAF melts steel scrap with electrodes in a batch operation.

P906 (Ladle Refining Station)
Refines molten steel from electric arc furnaces.

P907 (Alloy, Additives and Flux Handling)
Storage silos, storage bins, trim bins, and batch holding bins

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-04(A) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the 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

Christopher Jones
Director

# PART I - GENERAL TERMS AND CONDITIONS

## A. State and Federally Enforceable Section

### 1. Monitoring and Related Recordkeeping and Reporting Requirements

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

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

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

c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

i. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
ii. Quarterly written reports of (i) any deviations from federally enforceable <u>emission limitations</u>, <u>operational restrictions</u>, <u>and control device operating parameter limitations</u>, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. These quarterly written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.) See B.8 below if no deviations occurred during the quarter.
iii. Written reports, which identify any deviations from the federally enforceable <u>monitoring, recordkeeping, and reporting requirements</u> contained in this permit shall be submitted to

the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, recordkeeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

## 2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports submitted pursuant to OAC rule 3745-15-06 shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of deviations caused by malfunctions or upsets.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

## 3. Risk Management Plans

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

## 4. Title IV Provisions

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

## 5. Severability Clause

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

## 6. General Requirements

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

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

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

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

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

## 7. Fees

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

## 8. Marketable Permit Programs

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

## 9. Reasonably Anticipated Operating Scenarios

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

## 10. Reopening for Cause

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

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

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

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

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

## 11. Federal and State Enforceability

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

## 12. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

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

   i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.

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

iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

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

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

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

d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the appropriate Ohio EPA District Office or local air agency in the following manner and with the following content:

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

ii. Compliance certifications shall include the following:

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

(b) The permittee's current compliance status.

(c) Whether compliance was continuous or intermittent.

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

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

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

## 13. Permit Shield

a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but

excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

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

## 14. Operational Flexibility

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

## 15. Emergencies

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

## 16. Off Permit Changes

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

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

b. The permittee provides contemporaneous written notice of the change to the director and the administrator, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or

pollutants emitted, and any federally applicable requirement that would apply as a result of the change;

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

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

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

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

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

## 17. Compliance Method Requirements

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.

## 18. Insignificant Activity

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

## B. State Only Enforceable Section

### 1. Permit to Install Requirement

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

### 2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

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

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

### 3. Records Retention Requirements

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

### 4. Inspections and Information Requests

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

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

## 5. Scheduled Maintenance/Malfunction Reporting

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

## 6. Permit Transfers

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

## 7. Air Pollution Nuisance

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

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

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

# Part II - Specific Facility Terms and Conditions

## A. State and Federally Enforcable Section

**None**

## B. State Only Enforceable Section

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

F002 - Scrap storage
K001 - Pipe coater
P003 - 5 mmBtu/hr pipe reheater
Z002 - Safety-Kleen degreasing station
Z004 - 0.45 mmBtu/hr tundish preheater #1
Z006 - 8.6 mmBtu/hr ladle preheater #3
Z007 - 6.6 mmBtu/hr ladle preheater #4
Z008 - 200 Hp diesel fired generator
Z009 - Safety-Kleen degreasing station
Z010 - Safety-Kleen degreasing station
Z011 - 0.45 mmBtu/hr tundish preheater #2
Z012 - 4.95 mmBtu/hr natural gas fired mandrel furnace
Z013 - Safety Kleen degreasing station
Z014 - Pipe cutting and threading
Z015 - Pipe lathe for beveling
Z016 - Natural gas fired space heaters
Z018 - Plant maintenance welding
Z020 - Plant maintenance machining grinding, etc.
Z021 - 2000-gallon gasoline AST

## B. State Only Enforceable Section (continued)

**2.** Z022 - Safety Kleen degreasing station
Z023 - Safety-Kleen degreasing station
Z024 - Safety-Kleen degreasing station
Z025 - Safety-Kleen degreasing station
Z026 - Safety Kleen degreasing station
Z027 - Safety Kleen degreasing station
Z028 - Safety-Kleen degreasing station
Z029 - Safety-Kleen degreasing station
Z030 - Safety-Kleen degreasing station
Z031 - Safety Kleen degreasing station
Z032 - Safety Kleen degreasing station
Z033 - Safety-Kleen degreasing station
Z034 - Safety-Kleen degreasing station
Z035 - Safety-Kleen degreasing station
Z036 - Safety Kleen degreasing station
Z037 - Safety Kleen degreasing station
Z038 - Safety-Kleen degreasing station
Z039 - Safety-Kleen degreasing station
Z040 - Safety-Kleen degreasing station
Z041 - Safety Kleen degreasing station
Z042 - Safety Kleen degreasing station
Z043 - Safety-Kleen degreasing station
Z044 - Safety-Kleen degreasing station
Z045 - Safety-Kleen degreasing station
Z046 - Safety Kleen degreasing station
Z077 - Safety Kleen degreasing station
Z048 - Safety-Kleen degreasing station
Z049 - Safety-Kleen degreasing station
Z050 - Billet reheat diesel fired emergency water pump
Z051 - Portable electric generators
Z052 - Roll shop lathe
Z053 - Scrap billet/metal torch cutting

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

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Roadways & parking (F001)

**Activity Description:** Vehicle traffic and parking

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Paved roadways and parking areas (see Section A.I.2.a) | OAC rule 3745-17-07(B)(4) | No visible particulate emissions except for six minutes during any sixty-minute observation period |
| | 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.I.2.c, A.I.2.e and A.I.2.h through A.I.2.j) |
| Unpaved roadways and parking areas (see Section A.I.2.b) | OAC rule 3745-17-07(B)(5) | No visible particulate emissions except for thirteen minutes during any sixty-minute observation period |
| | 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.I.2.d through A.I.2.g, A.I.2.i and A.I.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:

scale house road
north road and apron
center road
entry road
visitor roadway and apron
employee roadway
courtyard
mill building east road and apron
ramp

paved parking areas:

vistor parking
employee parking

**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:

truck plant south road and apron
slag handling service road
south loop
blooming mill west road
blooming mill south road
melt shop access roads
north loop
mill building south road
G and I bays

unpaved parking areas:

all unpaved parking areas including those which may not have been specifically designated by the company

**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 sweeping and flushing at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

**2.d** The permittee shall employ reasonably available control measures on 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 water or suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

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

**2.e** 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.f** A maximum speed limit of 15 miles per hour on unpaved roads shall be posted and enforced on the property.

**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.

## 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 posess 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 parking areas in accordance with the following frequencies:

Paved roadways and parking areas: all

Minimum inspection frequency: weekly

Unpaved roadways and parking areas: all

Minimum inspection frequency: daily

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

**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 on days when the plant is operating and/or receiving raw material or loading-out material. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

**3.** The permittee 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.

**4.** 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 the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in 4.d. shall be kept separately for (i) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter 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, 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 deviation reports shall be submitted in accordance with Section A.1. of Part I of the General Terms and Conditions of this permit.

## V. Testing Requirements

**1.** Compliance with the emission limitation for the paved and unpaved roadways and parking areas identified above shall be determined in accordance with Test Method 22 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)(4)(a) through (B)(4)(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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**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:** Caster (F003)

**Activity Description:** Casts molten steel from the EAFs into solid round billets

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Continuous caster | OAC rule 3745-31-05(A)(3)<br>PTI No.: 02-12439 | PE/PM10: 0.26 pound per hour and 1.10 tons per year.<br><br>See A.I.2.b.<br><br>NOx: 3.70 pounds per hour and 16.30 tons per year (0.05 pound per ton of steel)<br><br>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B) and OAC rule 3745-17-08(B). |
| | OAC rule 3745-17-07(B)(1) | See A.I.2.a. |
| | OAC rule 3745-17-08(B) | See A.I.2.b. |

**2. Additional Terms and Conditions**

**2.a** Visible particulate emissions of fugitive dust shall not exceed twenty percent opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.

**2.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 include: the use of a ladle cover/mechanical shrouding between the ladle and the tundish and between the tundish and the mold.

### II. Operational Restrictions

**1.** The permitee shall restrict the annual liquid steel production to 650,000 tons per year, based upon a rolling, 365-day summation of the production rates.

## II. Operational Restrictions (continued)

**2.** To ensure enforceabilityduring the first twelve months of operation following start-up, the permittee shall not exceed the following liquid steel production limits.

| Month(s) | Allowable Cumulative Liquid Steel Production |
|---|---|
| 1 | 55,000 tons |
| 1-2 | 110,000 tons |
| 1-3 | 165,000 tons |
| 1-4 | 220,000 tons |
| 1-5 | 275,000 tons |
| 1-6 | 330,000 tons |
| 1-7 | 385,000 tons |
| 1-8 | 440,000 tons |
| 1-9 | 495,000 tons |
| 1-10 | 550,000 tons |
| 1-11 | 605,000 tons |
| 1-12 | 650,000 tons |

After the first twelve months of operation following start-up, the permittee shall restrict the liquid steel production to 650,000 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 information:

a. the liquid steel production rate for each day; and

b. beginning after the first twelve calendar months of operation following start-up, the rolling, 365-day summation of the liquid steel production rates.

**2.** Also, during the first twelve calendar months of operation following start-up, the permittee shall record the cumulative liquid steel production rate for each calendar month.

**3.** The permittee shall perform monthly inspections on the mechanical shrouding between the ladle and the tundish and between the tundish and the mold to ensure that they are in good operating condition.

**4.** The permittee shall perform daily checks when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from any egress point (e.g., windows, doors, roof monitors, etc.) associated with this emissions unit. The presence or absence of any visible fugitive particulate emissions shall be noted in an operations log. If visible fugitive particulate 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 fugitive particulate emission incident; and
e. any corrective actions taken to eliminate the visible fugitive particulate emissions.

## IV. Reporting Requirements

**1.** The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day liquid steel production rate limitation and, for the first 12 calendar months of operation following start-up, all exceedances of the allowable cumulative liquid steel production levels for this emissions unit.

**2.** The permittee shall submit deviation (excursion) reports that identify all monthly inspections of the mechanical shrouding between the ladle and the tundish and between the tundish and the mold that indicate they were not in good operating condition and summarize any corrective action taken.

## IV. Reporting Requirements (continued)

**3.** The permittee shall submit semiannual written reports which:

a. identify all days during which any visible fugitive particulate emissions were observed from any egress point serving this emissions unit; and

b. describe any corrective actions taken to eliminate the visible fugitive particulate emissions.

These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Emissions Limitation:
PE/PM10: 0.26 pound per hour

Applicable Compliance Method:
To determine the hourly particulate emissions rate for the continuous caster the following equation may be used:

E = (tons of steel/hour) (0.07 pound PE/PM10/ton steel) (1 - 0.95)

where:

E = particulate emissions (lb/hr)

0.07 pound PE/PM10/ton steel = emission factor (AP-42 Section 12.5, Table 12.5-1, Teeming Unleaded Steel , Iron and Steel Production, 10/86)

0.95 = control efficiency for mechanical shrouding

If required by the Ohio EPA, compliance with the particulate emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 5.

**2.** Emissions Limitation:
PE/PM10: 1.10 tons per year

Applicable Compliance Method:
To determine the annual particulate emissions rate for the continuous caster the following equation shall be used:

E = (tons of steel/yr) (0.07lb PE/PM10/ton steel) (1 - 0.95) (1ton/2000 lbs)

where:

E = particulate emissions (tons/yr)

0.07 pound PE/PM10/ton steel = emission factor (AP-42 Section 12.5, Table 12.5-1, Teeming Unleaded Steel, Iron and Steel Production, 10/86)

0.95 = control efficiency for mechanical shrouding

## V. Testing Requirements (continued)

**3.** Emissions Limitation:
NOx: 3.70 pounds per hour

Applicable Compliance Method:
To determine the hourly NOx emissions rate for the continuous caster the following equation may be used:

E = (tons of steel/hour) (0.05 pound NOx/ton steel)

where:

E = NOx emissions (lb/hr)

0.05 pound NOx/ton steel = NOx emission factor (emission factor provided by permittee in PTI# 02-12439 application)

If required by the Ohio EPA, compliance with the NOx emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 7 or 7E.

**4.** Emissions Limitation:
NOx: 16.30 tons per year

Applicable Compliance Method:
To determine the annual NOx emissions rate for the continuous caster the following equation shall be used:

E = (tons of steel/year) (0.05 pound NOx/ton steel) (1ton/2000 pounds)

where:

E = NOx emissions (tons/yr)

0.05 pound NOx/ton steel = NOx emission factor (emission factor provided by permittee in PTI# 02-12439 application)

**5.** Emissions Limitation:
Fugitive visible emissions shall not exceed twenty percent opacity, as a three-minute average.

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

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**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:** Dust Handling (F004)

**Activity Description:** Handles EAF dust collected in the 4-unit baghouse that serves both EAFs; and dust from cyclone

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| EAF baghouse dust handling system | OAC rule 3745-31-05(A)(3)<br>PTI No.: 02-12439 | The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08 and 40 CFR, Part 60, Subpart AAa. |
| | 40 CFR, Part 60, Subpart AAa | Visible PE from any equipment comprising this system shall not exceed ten percent opacity as a six-minute average. |
| | OAC rule 3745-17-07(B) | The emission limitation specified by this rule is less stringent than the emission limitation specified in 40 CFR, Part 60, Subpart AAa. |
| | OAC rule 3745-17-08(B) | See A.I.2.a. |
| EAF cyclone dust handling system | OAC rule 3745-31-05(A)(3)<br>PTI No.: 02-12439 | The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08 and 40 CFR, Part 60, Subpart AAa. |
| | 40 CFR, Part 60, Subpart AAa | Visible PE from any equipment comprising this system shall not exceed ten percent opacity as a six-minute average. |
| | OAC rule 3745-17-07(B) | The emission limitation specified by this rule is less stringent than the emission limitation specified in 40 CFR, Part 60, Subpart AAa. |
| | OAC rule 3745-17-08(B) | See A.I.2.b. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall minimize or eliminate visible particulate emissions through the employment of reasonably available control measures (RACM). At a minimum, the permittee shall ensure that this emissions unit remains within a total enclosure.

**2.b** The permittee shall minimize or eliminate visible particulate emissions through the employment of reasonably available control measures (RACM). At a minimum, the permittee shall ensure that this emissions unit remains within a total enclosure.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stacks and for any visible fugitive particulate emissions from any egress point (e.g., windows, doors, roof monitors, etc.) associated with this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate 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 particulate emission incident; and
e. any corrective actions taken to eliminate the visible particulate emissions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which:

a. identify all days during which any visible particulate emissions were observed from any stack and/or non-stack egress point serving this emissions unit; and

b. describe any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Emissions Limitation:
Fugitive visible emissions shall not exceed ten percent opacity, as a six-minute average.

Applicable Compliance Method:
Compliance with the visible emission limitation for the dust handling operation(s) 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 paragraph (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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**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 reheat furnace (P001)

**Activity Description:** Reheats Billets

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Billet reheat furnace using natural gas, with a maximum heat input of 165 mmBtu/hr | OAC rule 3745-31-05(A)(3)<br>PTI No.: 02-12439 | PE: 0.50 pound per hour and 2.17 tons per year (3.0 pounds per mmcf of natural gas)<br><br>NOx: 24.7 pounds per hour and 108.4 tons per year (0.15 pound per mmBtu)<br><br>CO: 13.9 pounds per hour and 60.9 tons per year (84.0 pounds per mmcf of natural gas)<br><br>SO2: 0.10 pound per hour and 0.43 tons per year (0.6 pound per mmcf of natural gas)<br><br>VOC: 0.91 pound per hour and 3.99 tons per year (5.5 pounds per mmcf of natural gas)<br><br>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-21-08, and 3745-23-06. |
| | OAC rule 3745-17-07(A) | See A.I.2.a. |
| | OAC rule 3745-17-11 | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| | OAC rule 3745-18-06 | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| | OAC rule 3745-21-08 | The limitations established pursuant to OAC rule 3745-31-05 meet the requirement for the use of the best available control techniques and operating practices in accordance with best current technology. |
| | OAC rule 3745-23-06 | The limitations established pursuant to OAC rule 3745-31-05 meet the requirement for the use of the latest available control techniques and operating practices in accordance with best current technology. |

**2. Additional Terms and Conditions**

**2.a** Visible particulate emissions from the billet reheat furnace shall not exceed twenty percent opacity, as a six-minute average except as follows: visible particulate emissions from the billet reheat furnace may exceed twenty percent opacity, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed sixty percent opacity, as a six-minute average, at any time.

## II. Operational Restrictions

**1.** The permittee shall only employ natural gas as fuel for the billet reheat furnace.

**2.** The permittee shall only employ low NOx burners or equivalent technology for the billet reheat furnace to reduce NOx emissions to 0.15 lb/mmBtu.

## III. Monitoring and/or Record Keeping Requirements

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

## IV. Reporting Requirements

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

## V. Testing Requirements

**1.** Emission Limitation:
PE: 0.50 pound per hour

Applicable Compliance Method:
Compliance may be determined by multiplying the emission factor of 1.9 lbs/mmcf of natural gas from AP-42, Table 1.4-2 (July 98 version) by the maximum heat input in mmBtu/hr, and dividing by 1020 Btu/cf.

If required by the Ohio EPA, compliance with the particulate emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 5.

**2.** Emissions Limitation:
PE: 2.17 tons per year

Applicable Compliance Method:
This limit is based on the allowable hourly emissions rate (0.50 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

## V. Testing Requirements (continued)

**3.** Emissions Limitation:
NOx: 24.7 pounds per hour and 0.15 pound per mmBtu heat input

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the NOx emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 7 or 7E.

**4.** Emissions Limitation:
NOx: 108.4 tons per year

Applicable Compliance Method:
This limit is based on the allowable hourly emissions rate (24.7 lbs/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

**5.** Emission Limitation:
CO: 13.9 pounds per hour

Applicable Compliance Method:
Compliance may be determined by multiplying the emission factor of 84.0 lbs/MM cf of natural gas from AP-42, Table 1.4-1 (July 98 version) by the maximum heat input in mmBtu/hr, and dividing by 1020 Btu/cf.

If required by the Ohio EPA, compliance with the NOx emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 10.

**6.** Emissions Limitation:
CO: 60.9 tons per year

Applicable Compliance Method:
This limit is based on the allowable hourly emissions rate (13.9 lbs/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

**7.** Emission Limitation:
SO2: 0.10 pound per hour

Applicable Compliance Method:
Compliance may be determined by multiplying the emission factor of 0.6 lb/mmcf of natural gas from AP-42, Table 1.4-2 (July 98 version) by the maximum heat input in mmBtu/hr, and dividing by 1020 Btu/cf.

If required by the Ohio EPA, compliance with the NOx emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 6.

**8.** Emissions Limitation:
SO2: 0.43 ton per year

Applicable Compliance Method:
This limit is based on the allowable hourly emissions rate (0.1 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

**9.** Emission Limitation:
VOC: 0.91 pound per hour

Applicable Compliance Method:
Compliance may be determined by multiplying the emission factor of 5.5 lbs/mmcf of natural gas from AP-42, Table 1.4-2 (July 98 version) by the maximum heat input in mmBtu/hr, and dividing by 1020 Btu/cf.

If required by the Ohio EPA, compliance with the NOx emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 25 or 25A.

## V. Testing Requirements (continued)

**10.** Emissions Limitation:
VOC: 3.99 tons per year

Applicable Compliance Method:
This limit is based on the allowable hourly emissions rate (0.91 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

**11.** Emissions Limitation:
Visible emissions from the billet reheat furnace shall not exceed twenty percent opacity, as a six-minute average except as follows: visible particulate emissions from the billet reheat furnace may exceed twenty percent opacity, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed sixty percent opacity, as a six-minute average, at any time.

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

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**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:** Pipe Mill (P002)

**Activity Description:** Rolls steel billets into seamless pipe

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| MPM and sizing seamless steel pipe mill with two venturi scrubbers | OAC rule 3745-31-05(A)(3)<br>PTI No.: 02-3483 | PE: 0.015 grain per dry standard cubic foot of exhaust gases from the venturi scrubbers and 45 tons per year<br><br>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), OAC rule 3745-17-07(B), and OAC rule 3745-17-08(B) . |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions from the stack shall not exceed twenty-percent opacity, as a six-minute average, except as provided by the rule. |
| | OAC rule 3745-17-07(B)(1) | See A.I.2.a. |
| | OAC rule 3745-17-08(B) | See A.I.2.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). |

### 2. Additional Terms and Conditions

**2.a** Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.

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

**2.b** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:

i. the installation and use of hoods, fan, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the two venturi scrubbers (MPM and sizing mill); and

ii. maintaining 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 MPM venturi scrubber shall be continuously maintained at a value of not less than 6 inches of water at all times while the emissions unit is in operation.

**2.** The pressure drop across the sizing mill venturi scrubber shall be continuously maintained at a value of not less than 6 inches of water at all times while the emissions unit is in operation.

**3.** The fan motor amps for the MPM venturi scrubber fan shall be continuously maintained at a value of not less than 70 amps at all times while the emissions unit is in operation.

**4.** The fan motor amps for the sizing mill venturi scrubber fan shall be continuously maintained at a value of not less than 175 amps at all times while the emissions unit is in operation.

**5.** The discharge pump water pressure for the MPM venturi scrubber shall be continuously maintained at a value of not less than 6 pounds per square inch at all times while the emissions unit is in operation.

**6.** The discharge pump water pressure for the sizing mill venturi scrubber shall be continuously maintained at a value of not less than 25 pounds per square inch at all times while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall maintain equipment to continuously monitor the static pressure drop across the venturi scrubbers, the amperage of the fan motors associated with the venturi scrubbers, and the discharge pump water pressure for each discharge pump associated with the venturi scrubbers while the emissions unit is in operation. The monitoring devices shall be calibrated, operated and maintained in accordance with the permittee's operating procedures and/or manuals.

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

a. The pressure drop across each of the scrubbers, in inches of water, on a once-per-shift basis.

b. The amperage for each fan motor, in amperes, on a once-per-shift basis.

c. The water pressure for each discharge pump, in pounds per square inch, on a once-per-shift basis.

d. The downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

**2.** The permittee shall perform daily checks when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from any egress point (e.g., windows, doors, roof monitors, etc.) associated with this emissions unit. The presence or absence of any visible fugitive particulate emissions shall be noted in an operations log. If visible fugitive particulate 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 fugitive particulate emission incident; and
e. any corrective actions taken to eliminate the visible fugitive particulate emissions.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. The static pressure drop.

b. The fan motor amperage.

c. The discharge pump water pressure.

**2.** The permittee shall submit semiannual written reports which:

a. identify all days during which any visible fugitive particulate emissions were observed from any non-stack egress point serving this emissions unit; and

b. describe any corrective actions taken to eliminate the visible fugitive particulate emissions.

These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Emissions Limitation:
PE: 0.015 grain per dry standard cubic foot of exhaust gases

Applicable Compliance Method:
Compliance with the particulate emissions rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures in OAC rule 3745-17-03.

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

a. The emission testing shall be conducted between years 2 and 3 after issuance of this permit, and within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate emissions.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northeast District Office.

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

## V. Testing Requirements (continued)

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the 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.

**2.** Emissions Limitation:
Visible emissions from the stack shall not exceed twenty-percent opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance with the allowable visible emissions limitations shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03.

**3.** Emissions Limitation:
Visible emissions of fugitive dust shall not exceed twenty-percent opacity, as a three-minute average.

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

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**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:** Plasma Arc Torch Cutting Equipment (P004)

**Activity Description:** Torch to cut ends of pipe at mandrill pipe mill.

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Plasma arc torch cutting operation with baghouse | OAC rule 3745-31-05(A)(3)<br>PTI No.: 02-9808 | PE/PM10: 0.01 grain per dry standard cubic foot of exhaust gases and 0.163 pound per hour and 0.71 ton per year (for the emissions from the baghouse).<br><br>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), OAC rule 3745-17-07(B) and OAC rule 3745-17-08(B). |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions from the stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by the rule. |
| | OAC rule 3745-17-07(B)(1) | Visible emissions of fugitive dust shall not exceed twenty percent opacity, as a three-minute average. |
| | OAC rule 3745-17-08(B) | See A.I.2.a. |
| | 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 collection efficiency must be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

### II. Operational Restrictions

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

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring devices shall be calibrated, operated and maintained in accordance with the permittee's operating procedures and/or manuals. The permittee shall record the pressure drop across the baghouse on a daily basis.

**2.** The permittee shall perform daily checks when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from any egress point (e.g., windows, doors, roof monitors, etc.) associated with this emissions unit. The presence or absence of any visible fugitive particulate emissions shall be noted in an operations log. If visible fugitive particulate 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 fugitive particulate emission incident; and
e. any corrective actions taken to eliminate the visible fugitive particulate emissions.

## IV. Reporting Requirements

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

**2.** The permittee shall submit semiannual written reports which:

a. identify all days during which any visible fugitive particulate emissions were observed from any non-stack egress point serving this emissions unit; and

b. describe any corrective actions taken to eliminate the visible fugitive particulate emissions.

These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Emissions Limitation:
PE/PM10: 0.163 pound per hour and 0.01 grain per dry standard cubic foot of exhaust gases

Applicable Compliance Method:
Compliance with the particulate emissions rates shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures in OAC rule 3745-17-03.

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

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulate emissions.

c. The following test method(s) shall be employed to demonstrate compliance with the PE/PM10allowable mass emission rate(s): Method 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northeast District Office.

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

## V. Testing Requirements (continued)

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the 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.

**3.** Emissions Limitation:
Visible emissions from the stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance with the allowable visible emissions limitations shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03.

**4.** Emissions Limitation:
Visible emissions of fugitive dust shall not exceed twenty percent opacity, as a three-minute average.

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

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**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:** Ladle Preheater 1 (P005)

**Activity Description:** Maintains ladle refractory temperature

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 10.0 mmBtu ladle preheater #1 | OAC rule 3745-31-05(A)(3)<br>PTI No.: 02-11808 | PE/PM10: 0.14 pound per hour and 0.61 ton per year<br><br>SO2: 0.01 pound per hour and 0.03 ton per year<br><br>NOx: 1.40 pounds per hour and 6.13 tons per year<br><br>CO: 0.35 pound per hour and 1.53 tons per year<br><br>VOC: 0.03 pound per hour and 0.12 ton per year<br><br>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(B) and 3745-17-08(B). |
| | OAC rule 3745-17-07(B)(1) | See A.I.2.a. |
| | OAC rule 3745-17-08(B) | See A.I.2.b. |
| | OAC rule 3745-18-06(E)(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). |

**2. Additional Terms and Conditions**

**2.a** Visible particulate emissions of any fugitive dust shall not exceed twenty percent opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.

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

**2.b** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).

At a minimum, the permittee's employment of RACM shall include the use of natural gas as the fuel for the preheater.

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

## V. Testing Requirements

**1.a** Emissions Limitation:
0.14 pound per hour of particulate emissions and PM10

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 1.9 lbs/mmcf from the AP-42, Fifth edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1 cf/1030 Btu.

**1.b** Emissions Limitation:
0.61 ton per year of particulate emissions and PM10

Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (0.14 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

**1.c** Emissions Limitation:
0.01 pound per hour of sulfur dioxide

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 0.60 lb/mmcf from the AP-42, Fifth Edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1cf/1030 Btu.

**1.d** Emissions Limitation:
0.03 ton per year of sulfur dioxide

Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (0.01 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

**1.e** Emissions Limitation:
1.40 pounds per hour of nitrogen oxides

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 100.0 lbs/mmcf from the AP-42, Fifth Edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1 cf/1030 Btu.

## V. Testing Requirements (continued)

**1.f** Emissions Limitation:
6.13 tons per year of of nitrogen oxides

Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (1.40 lbs/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

**1.g** Emissions Limitation:
0.35 pound per hour of carbon monoxide

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 84.0 lbs/mmcf from the AP-42, Fifth Edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1 cf/1030 Btu.

**1.h** Emissions Limitation:
1.53 tons per year of carbon monoxide

Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (0.35 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

**1.i** Emissions Limitation:
0.03 pound per hour of volatile organic compounds

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 5.5 lbs/mmcf from the AP-42, Fifth Edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1 cf/1030 Btu.

**1.j** Emissions Limitation:
0.12 ton per year of volatile organic compounds

Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (0.03 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

**2.** Emission Limitation:
Visible particulate emissions from any fugitive source shall not exceed twenty percent opacity as a three-minute average.

Applicable Compliance Method:
Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3). The points of observation for visible emissions shall include any non-stack egress points from the buildings not limited to, doorways, windows, and roof monitors.

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**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:** Ladle Preheater 2 (P006)

**Activity Description:** Maintains ladle refractory temperature

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 10.0 mmBtu ladle preheater #2 | OAC rule 3745-31-05(A)(3)<br>PTI No.: 02-11808 | PE/PM10: 0.14 pound per hour and 0.61 ton per year<br><br>SO2: 0.01 pound per hour and 0.03 ton per year<br><br>NOx: 1.40 pounds per hour and 6.13 tons per year<br><br>CO: 0.35 pound per hour and 1.53 tons per year<br><br>VOC: 0.03 pound per hour and 0.12 ton per year<br><br>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(B) and 3745-17-08(B). |
| | OAC rule 3745-17-07(B)(1) | See A.I.2.a. |
| | OAC rule 3745-17-08(B) | See A.I.2.b. |
| | OAC rule 3745-18-06(E)(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). |

**2. Additional Terms and Conditions**

**2.a** Visible particulate emissions of any fugitive dust shall not exceed twenty percent opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.

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

**2.b** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).

At a minimum, the permittee's employment of RACM shall include the use of natural gas as the fuel for the preheater.

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

## V. Testing Requirements

**1.a** Emissions Limitation:
0.14 pound per hour of particulate emissions and PM10

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 1.9 lbs/mmcf from the AP-42, Fifth edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1 cf/1030 Btu.

**1.b** Emissions Limitation:
0.61 ton per year of particulate emissions and PM10

Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (0.14 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

**1.c** Emissions Limitation:
0.01 pound per hour of sulfur dioxide

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 0.60 lb/mmcf from the AP-42, Fifth Edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1cf/1030 Btu.

**1.d** Emissions Limitation:
0.03 ton per year of sulfur dioxide

Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (0.01 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

**1.e** Emissions Limitation:
1.40 pounds per hour of nitrogen oxides

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 100.0 lbs/mmcf from the AP-42, Fifth Edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1 cf/1030 Btu.

## V. Testing Requirements (continued)

**1.f** Emissions Limitation:
6.13 tons per year of of nitrogen oxides

Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (1.40 lbs/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

**1.g** Emissions Limitation:
0.35 pound per hour of carbon monoxide

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 84.0 lbs/mmcf from the AP-42, Fifth Edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1 cf/1030 Btu.

**1.h** Emissions Limitation:
1.53 tons per year of carbon monoxide

Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (0.35 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

**1.i** Emissions Limitation:
0.03 pound per hour of volatile organic compounds

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 5.5 lbs/mmcf from the AP-42, Fifth Edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1 cf/1030 Btu.

**1.j** Emissions Limitation:
0.12 ton per year of volatile organic compounds

Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (0.03 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

**2.** Emission Limitation:
Visible particulate emissions from any fugitive source shall not exceed twenty percent opacity as a three-minute average.

Applicable Compliance Method:
Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3). The points of observation for visible emissions shall include any non-stack egress points from the buildings not limited to, doorways, windows, and roof monitors.

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**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:** Modified Cooling Tower (P007)

**Activity Description:** Contact water cooling tower

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Cooling tower | OAC rule 3745-31-05(A)(3)<br>PTI No.: 02-12439 | PE/PM10: 1.8 pounds per hour and 7.9 tons per year<br><br>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07 and 3745-17-08. |
| | OAC rule 3745-17-07(B)(1) | Visible emissions of fugitive dust shall not exceed twenty percent opacity, as a three-minute average. |
| | OAC rule 3745-17-08(B) | See A.I.2. |

**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). These measures shall include, but not be limited to, the following:

i. The monthly average concentration of total dissolved solids (TDS) in the cooling tower water shall not exceed 840 parts per million.

ii. The interior of the water tower shall be equipped with a baffle system which is designed and maintained in accordance with good engineering practice and which provides coverage of not less than ninety-five percent of the cross sectional area of the tower.

### II. Operational Restrictions

**1.** The water flow through the cooling tower shall not exceed 21,000 gallons per minute.

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

**1.** The permittee shall properly operate and maintain equipment to monitor the cooling tower water flow rate. The monitoring device(s) and any recorders shall be installed, callibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

**2.** The permittee shall monitor and record the cooling tower water flow rate, in gallons per minute, at a minimum frequency of once per day.

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

**3.** The permittee shall sample the cooling tower water at a minimum frequency of once per week and average the weekly values to demonstrate compliance with the monthly average total dissolved solids (TDS) limitation of 840 parts per million.

**4.** Each cooling tower water sample shall be collected from the discharge side of the water delivery system. The sample shall be collected in a clean plastic bottle. The concentration of total dissolved solids in each sample shall be determined according to section 209(C), "Standard Methods for the Examination of Water and Wastewater," fifteenth edition, using a drying temperature between one hundred three and one hundred five degrees Celsius.

**5.** The permittee shall maintain records of the results of the total dissolved solids analysis for each cooling tower water sample, and of the calculated average concentration for each month.

## IV. Reporting Requirements

**1.** The permittee shall submit quarterly deviation (excursion) reports that identify all days during which the cooling tower water flow rate exceeded 21,000 gallons per minute.

**2.** The permittee shall submit quarterly deviation (excursion) reports that identify all months during which the monthly average concentration of total dissolved solids (TDS) in the cooling tower water exceeded 840 parts per million.

## V. Testing Requirements

**1.** Emissions Limitation:
PE/PM10: 1.8 pounds per hour

Applicable Compliance Method:
To determine the particulate emissions rate for the cooling tower the following equation shall be used:

E = (water flow rate) (1.7 pounds drift water/1000 gallons) (840 pounds PE/PM10/1E6 pounds drift water) (60 minutes/hour)

where:

E = particulate emissions (lb/hr)

1.7 pounds drift water/1000 gallons = drift rate (AP-42 Section 13.4, Table 13.4-1, Wet Cooling Towers, 1/95)

840 pounds PE/PM10/1E6 pounds drift water = maximum allowable total dissolved solids (TDS) concentration

**2.** Emissions Limitation:
PE/PM10: 7.9 tons per year

Applicable Compliance Method:
This limit is based on the allowable hourly emissions rate (1.8 lbs/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 lb/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

**3.** Emissions Limitation:
Visible emissions of fugitive dust shall not exceed twenty percent opacity, as a three-minute average.

Applicable Compliance Method:
Compliance with the allowable visible emissions limitations for the fugitive particulate emissions 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) snd (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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**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:** Electric Arc Furnace (P905)

**Activity Description:** An EAF melts steel scrap with electrodes in a batch operation.

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Single shell AC electric arc furnace (EAF) with roof canopy hood fume collection/direct evacuation control system and baghouse | OAC rule 3745-31-05(A)(3)<br>PTI No.: 02-12439 | PE: 17.40 pounds per hour, 75.03 tons per year (includes stack and fugitive emissions), and 0.0032 grain per dry standard cubic foot of exhaust gases from the baghouse<br><br>PM10: 13.22 pounds per hour and 57.02 tons per year (includes stack and fugitive emissions)<br><br>NOx: 33.25 pounds per hour and 113.8 tons per year (and 0.35 pound per ton of steel) (includes stack and fugitive emissions)<br><br>CO: 380 pounds per hour and 1300 tons per year (and 4.0 pounds per ton of steel) (includes stack and fugitive emissions)<br><br>SO2: 9.5 pounds per hour and 32.5 tons per year (and 0.10 pound per ton of steel) (includes stack and fugitive emissions)<br><br>VOC: 17.1 pounds per hour and 58.5 tons per year (and 0.18 pound per ton of steel) (includes stack and fugitive emissions)<br><br>Pb: 0.30 pound per hour and 1.27 tons per year (includes stack and fugitive emissions)<br><br>See A.I.2.b and A.I.2.c. |

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| | | The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07, 3745-21-08, 3745-23-06, and the VE limitations specified in 40 CFR, Part 60, Subpart AAa. |
| | OAC rule 3745-17-07(A) & (B) | The emission limitations specified by these rules are less stringent than the emission limitations 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). |
| | OAC rule 3745-18-06 | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3). |
| | OAC rule 3745-21-07 | See A.I.2.a. |
| | OAC rule 3745-21-08 | See A.I.2.a. |
| | OAC rule 3745-23-06 | See A.I.2.a. |
| | 40 CFR Part 60, Subpart AAa | Visible particulate emissions from the baghouse shall not exhibit three (3) per cent opacity or greater as a six-minute average.<br><br>Visible particulate emissions of fugitive dust from the electric arc furnace shop due to operation of the EAF shall not exhibit six (6) per cent opacity or greater as a six-minute average.<br><br>The mass 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 permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-07 and rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in permit to install 02-12439.

**2.b** The electric arc furnace shall be installed with a roof canopy hood fume collection sytem in addition to a direct evacuation control (DEC) system. These systems shall be capable of capturing a minimum of 99% of the generated emissions of particulate from the air contaminant source operation including charging, melting, refining, and tapping periods in the steel making cycle.

**2.c** Particulate emissions captured by the fume collection systems for the electric arc furnace shall be exhausted to the existing EAF/LTS fabric filter control device.

## II. Operational Restrictions

**1.** The permittee shall restrict the annual liquid steel production to 650,000 tons per year, based upon a rolling, 365-day summation of the production rates.

**2.** To ensure enforceability during the first twelve months of operation following start-up, the permittee shall not exceed the following liquid steel production limits.

| Month | Total Allowable liquid Steel Production |
|---|---|
| 1 | 55,000 tons |
| 1-2 | 110,000 tons |
| 1-3 | 165,000 tons |
| 1-4 | 220,000 tons |
| 1-5 | 275,000 tons |
| 1-6 | 330,000 tons |
| 1-7 | 385,000 tons |
| 1-8 | 440,000 tons |
| 1-9 | 495,000 tons |
| 1-10 | 550,000 tons |
| 1-11 | 605,000 tons |
| 1-12 | 650,000 tons |

After the first twelve months of operation following start-up, the permittee shall restrict the liquid steel production to 650,000 tons per year, based upon a rolling 365-day summation.

**3.** The pressure drop across the baghouse shall be maintained within the range of 3 to 6 inches of water while the emissions unit is in operation.

**4.** The permittee shall follow the "Scrap Management Program" that was submitted to Ohio EPA, Northeast District Office (NEDO) and that was developed to minimize the use of scrap that contains extraneous materials such as oiled steel, pipes with residues and coatings, enameled materials, transmissions, shock absorbers, tinned materials, rubber, concrete, dirt, or wood that may contaminate the scrap charged into the EAF. The "Scrap Management Program" shall be viewed as part of the operational requirements for the EAF permit. Any change to the "Scrap Management Program" that would increase the amounts of these compounds in the scrap, or result in the emissions of an air contaminant not previously emitted, must be approved by the NEDO.

**5.** The value for the pressure in the free space inside the EAF, as determined during the most recent visible particulate emission compliance demonstration, shall be maintained at all times when the EAF is operating in a meltdown and refining period.

**6.** The values for the static pressure in the EAF and either the fan motor amperes and damper position for each operating fan or the volumetric flow rate through each separately ducted hood, as determined during the most recent visible particulate emission compliance demonstration, shall be maintained at all times when the EAF is operating.

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall maintain daily records of the following information:

a. the liquid steel production rate for each day; and

b. beginning after the first twelve calendar months of operation following start-up, the rolling, 365-day summation of the liquid steel production rates.

Also, during the first twelve calendar months of operation following start-up, the permittee shall record the cumulative liquid steel production rate for each calendar month.

**2.** Visible particulate emissions observations of the EAF/LRS multiple-stack positive-pressure fabric filter shall occur at least once per day of operation. Observations shall be occur when the EAF is operating in the melting and refining phase of a heat cycle. Additional observations shall be made during the electric arc heating phase of the LRS processing cycle. These observations shall be taken in accordance with Method 9 of 40 CFR Part 60, Appendix A, and shall include at least three six-minute periods during EAF melting and refining and at least one six-minute period of the LRS electric arc heating phase in the processing cycle. The opacity shall be recorded for the stack(s) where the greatest opacity of the visible emissions are observed in accordance with the procedures listed in Method 9 of 40 CFR Part 60, Appendix A. Records shall be maintained of all the visible particulate emissions observed. (40 CFR Part 60 Subpart AAa requires these opacity observations.)

**3.** The permittee shall install calibrate, and maintain a monitoring device that allows the pressure in the free space inside the EAF to be monitored. However, should the New Source Performance Standards for electric arc furnaces be amended, the permittee can amend the monitoring and record keeping provisions of this permit to be consistent with the revised performance standards. The monitoring device may be installed in any appropriate location in the EAF duct prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of +/- 5 mm of water gauge over its normal operating range and shall be calibrated according to manufacturer's instructions. The pressure shall be recorded as 15-minute integrated averages. The pressure determined during the most recent visible particulate emission compliance demonstration shall be maintained at all times when the EAF is operating in a meltdown and refining period. Operation at higher pressures will be considered unacceptable operation and maintenance of the control system. The permittee may petition for reestablishment of the 15-minute integrated average of the pressure whenever the permittee can demonstrate satisfactorily that EAF operating conditions upon which the pressures were previously established are no longer applicable.

**4.** The permittee shall check and record on a once-per-shift basis the static pressure in the EAF and either (a) check and record the fabric filter control system fan motor amperes and damper position for each of the operating fans on a once-per-shift basis or (b) install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood. The monitoring device shall be installed in a location in the exhaust duct such that reproducible flow rate data may be obtained. The monitoring device shall have an accuracy of +/- 10 percent over its normal operating range and shall be calibrated according to the manufacturer's instructions. The permittee may be required to demonstrate the accuracy of the monitoring devices relative to Methods 1 and 2 of Appendix A of 40 CFR, Part 60. The values of these parameters as determined during the most recent visible particulate emission compliance demonstration shall be maintained at the appropriate levels for each applicable period. Operation at other than baseline values will be considered unacceptable operation and maintenance of the control system. The permittee may petition for reestablishment of these parameters whenever the permittee can demonstrate satisfactorily that the operating conditions upon which the parameters were previously established are no longer applicable.

**5.** The permittee shall perform monthly operational status inspections of the equipment that are important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). Any deficiencies shall be recorded and proper maintenance performed. The permittee may petition for the approval of an alternative to monthly operational status inspections that will provide a continuous record of the operation of each emission capture system.

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

**6.** Shop opacity observations shall be conducted at least once per day for thirty minutes when the furnace is operating in the meltdown and refining period. (The "shop" is the building that houses the EAF.) Shop opacity shall be determined as the arithmetic average of 24 consecutive 15-second opacity observations of emissions from the shop taken in accordance with Method 9. Shop opacity shall be recorded for any point(s) where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of visible emissions, only one observation of shop opacity will be required. In this case, the shop opacity observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident. (40 CFR Part 60 Subpart AAa requires these shop opacity observations.) The shop opacity observations shall be taken at the shop roofline.

**7.** The permittee shall operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring devices shall be calibrated, operated and maintained in accordance with the permittee's operating procedures and/or manuals. The permittee shall record the pressure drop across the baghouse on a daily basis.

## IV. Reporting Requirements

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

**2.** The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day liquid steel production rate limitation and, for the first 12 calendar months of operation following start-up, all exceedances of the allowable cumulative liquid steel production levels for this emissions unit.

**3.** The permittee shall submit deviation (excursion) reports that identify all exceedances of the visible particulate emission limit for the fabric filter control device. For the purpose of these reports, an exceedance is defined as any six-minute period during which the average opacity is three percent or greater.

**4.** The permittee shall submit deviation (excursion) reports that identify all exceedances of the fugitive visible particulate emission limit for the electric arc furnace shop. For the purpose of these reports, an exceedance is defined as any six-minute period during which the average opacity is six percent or greater.

**5.** The permittee shall submit deviation (excursion) reports that identify all exceedances of the established value for the pressure in the free space inside the EAF, when the EAF was operating in a meltdown and refining period.

**6.** The permittee shall submit deviation (excursion) reports that identify all exceedances of the established values for the static pressure in the EAF and either the fan motor amperes and damper position for each operating fan or the volumetric flow rate through each separately ducted hood, when the EAF was operating.

## V. Testing Requirements

**1.** Emissions Limitation:
PE: 17.40 pounds per hour (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine the hourly particulate emission rate for the EAF, the following equations shall be used:

a. E1(stack emissions) = (619,584 scfm) (tested emission rate in gr/scf) (1pound/7000 grains) (60 minutes/hr) (0.95)

where,

E1 = particulate emissions from baghouse (lbs/hour)

619,584 SCFM = maximum baghouse flow rate

0.95 = assumed percent flow attributable to EAF (emissions unit P905)

b. E2 (fugitive emissions) = (tons of steel produced/hour) (1.4 pounds PE/ton of steel) (1-0.99) (0.95)

where,

E2 = fugitive particulate emissions (lbs/hour)

1.4 pounds PE/ton steel = emission factor (AP-42 Section 12.5, Table 12.5-1, electric arc furnace charging, tapping, and slagging, Iron and Steel Production, 10/86)

0.95 = assumed percent of total fugitive emissions attributable to EAF (emissions unit P905)

0.99 = capture efficiency for direct evacuation fume collection system

c. Etotal = E1 + E2

where,

Etotal = total hourly PE emissions from EAF (lbs/hour)

E1 = particulate emissions from baghouse (lbs/hour)

E2 = fugitive particulate emissions (lbs/hour)

If required by the Ohio EPA, compliance with the particulate emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures outlined in OAC rule 3745-17-03.

## V. Testing Requirements (continued)

**2.** Emissions Limitation:
PE: 75.03 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine the annual particulate emission rate for the EAF, the following equations shall be used:

a. E1(stack emissions) = (619,584 scfm) (tested emission rate in gr/scf) (1pound/7000 grains) (60 minutes/hr) (actual hours of operation/year) (1 ton/2000 pounds) (0.95)

where,

E1 = particulate emissions from baghouse (tons/year)

619,584 SCFM = maximum baghouse flow rate

0.95 = assumed percent flow attributable to EAF (emissions unit P905)

b. E2 (fugitive emissions) = (tons of steel produced/year) (1.4 pounds PE/ton of steel) (1-0.99) (1ton/2000 pounds) (0.95)

where,

E2 = fugitive particulate emissions (tons/year)

1.4 pounds PE/ton steel = emission factor (AP-42 Section 12.5, Table 12.5-1, electric arc furnace charging, tapping, and slagging, Iron and Steel Production, 10/86)

0.95 = assumed percent of total fugitive emissions attributable to EAF (emissions unit P905)

0.99 = capture efficiency for direct evacuation fume collection system

c. Etotal = E1 + E2

where,

Etotal = total annual PE emissions from EAF (tons/year)

E1 = particulate emissions from baghouse (tons/year)

E2 = fugitive particulate emissions (tons/year)

## V. Testing Requirements (continued)

**3.** Emissions Limitation:
PM10: 13.22 pounds per hour (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine the hourly PM10 emission rate for the EAF the following equation shall be used:

E = (Etotal) (0.76)

where,

E = hourly PM10 emissions (lbs/hour)

Etotal = total hourly PE emissions from EAF, as determined in Section A.V.1.

0.76 = fraction of total PE emissions assumed to be PM10 (factor supplied by the company in the application for PTI 02-12439 and is based upon a test of a similar EAF at CSC)

If required by the Ohio EPA, compliance with the PM10 emission rate shall be determined in accordance with 40 CFR Part 51, Appendix M, Methods 201or 201A.

**4.** Emissions Limitation:
PM10: 57.02 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine the annual PM10 emission rate for the EAF the following equation shall be used:

E = (Etotal) (0.76)

where,

E = annual PM10 emissions (tons/year)

Etotal = total annual PE emissions from EAF, as determined in Section A.V.2.

0.76 = fraction of total PE emissions assumed to be PM10 (factor supplied by the company in the application for PTI 02-12439 and is based upon a test of a similar EAF at CSC)

**5.** Emissions Limitation:
NOx: 33.25 pounds per hour and 0.35 pound per ton of steel (includes stack and fugitive emissions)

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the NOx emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 7 or 7E.

**6.** Emissions Limitation:
NOx: 113.8 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine the hourly NOx emission rate for the EAF the following equation shall be used:

E = (0.35 pound NOx/ton of steel) (tons of steel produced/yr) (1ton/2000 pound)

E = NOx emissions (tons/yr)

0.35 pound NOx/ton of steel = allowable emission rate for NOx

## V. Testing Requirements (continued)

**7.** Emissions Limitation:
CO: 380.0 pounds per hour and 4.0 pounds per ton of steel (includes stack and fugitive emissions)

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the CO emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 10.

**8.** Emissions Limitation:
CO: 1300.0 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine the annual CO emission rate for the EAF the following equation shall be used:

E = (4.0 pounds CO/ton of steel) (tons of steel produced/year) (1ton/2000 pounds)

E = CO emissions (tons/yr)

4.0 pounds CO/ton of steel = allowable emission rate for CO

**9.** Emissions Limitation:
SO2: 9.5 pounds per hour and 0.10 pound per ton of steel (includes stack and fugitive emissions)

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the SO2 emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 6 or 6C.

**10.** Emissions Limitation:
SO2: 32.5 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine the annual SO2 emission rate for the EAF the following equation shall be used:

E = (0.10 pound SO2/ton of steel) (tons of steel produced/year) (1ton/2000 pounds)

E = SO2 emissions (tons/yr)

0.10 pound SO2/ton of steel = allowable emission rate for SO2

**11.** Emissions Limitation:
VOC: 17.1 pounds per hour and 0.18 pound per ton of steel (includes stack and fugitive emissions)

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the VOC emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 18, 25, or 25A .

**12.** Emissions Limitation:
VOC: 58.5 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine the annual VOC emission rate for the EAF the following equation shall be used:

E = (0.18 pound VOC/ton of steel) (tons of steel produced/year) (1ton/2000 pounds)

E = VOC emissions (ton/yr)

0.18 pound VOC/ton of steel = allowable emission rate for VOC

## V. Testing Requirements (continued)

**13.** Emissions Limitation:
Pb: 0.30 pound per hour (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine the hourly Pb emission rate for the EAF the following equation shall be used:

E = (Etotal) ( 0.017)

where,

E = Pb emissions (lb/hr)

Etotal = total hourly PE emissions from EAF, as determined in Section A.V.1

0.017 = the average Pb content of the baghouse dust, as a weight fraction

If required by the Ohio EPA, compliance with the Pb emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 29.

**14.** Emissions Limitation:
Pb: 1.27 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine the annual Pb emission rate for the EAF the following equation shall be used:

E = (Etotal) ( 0.017)

where,

E = Pb emissions (tons/yr)

Etotal = total annual PE emissions from EAF, as determined in Section A.V.2

0.017 = the average Pb content of the baghouse dust, as a weight fraction

**15.** Emissions Limitation:
Visible particulate emissions of fugitive dust from the electric arc furnace shop due to operation of the EAF shall not exhibit six (6) percent opacity or greater as a six-minute average.

Applicable Compliance Method:
Compliance with the allowable visible emissions limitations shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03.

**16.** Emissions Limitation:
Visible particulate emissions from the baghouse shall not exhibit three (3) percent opacity or greater as a six-minute average.

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

## V. Testing Requirements (continued)

**17.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted between years 2 and 3 after issuance of the permit and within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and sulfur dioxide.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1-5 and 6 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northeast District Office.

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

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**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:** Ladle Refining Station (P906)

**Activity Description:** Refines molten steel from electric arc furnaces.

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Ladle refining station with baghouse | OAC rule 3745-31-05(A)(3)<br>PTI No.: 02-12439 | PE: 0.92 pound per hour, 3.95 tons per year (includes stack and fugitive emissions), and 0.0032 grain per dry standard cubic foot of exhaust gases from baghouse<br><br>PM10: 0.70 pound per hour and 3.00 tons per year (includes stack and fugitive emissions)<br><br>NOx: 4.75 pounds per hour and 16.3 tons per year (and 0.05 pound per ton of steel) (includes stack and fugitive emissions)<br><br>CO: 47.5 pounds per hour and 162.5 tons per year (and 0.5 pound per ton of steel) (includes stack and fugitive emissions)<br><br>SO2: 9.5 pounds per hour and 32.5 tons per year (and 0.10 pound per ton of steel) (includes stack and fugitive emissions)<br><br>Pb: 0.02 pound per hour and 0.07 ton per year (includes stack and fugitive emissions)<br><br>See A.I.2.b and A.I.2.c.<br><br>The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07, 3745-21-08, 3745-23-06, and the VE limitations specified in 40 CFR, Part 60, Subpart AAa. |

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| | OAC rule 3745-17-07(A) & (B) | The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05 (A)(3). |
| | OAC rule 3745-17-08(B) | The emissions limitation specified by this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05 (A)(3). |
| | OAC rule 3745-17-11 | The emissions limitation specified by this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05 (A)(3). |
| | OAC rule 3745-18-06 | The emissions limitation specified by this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05 (A)(3). |
| | OAC rule 3745-21-08 | See A.I.2.a. |
| | OAC rule 3745-23-06 | See A.I.2.a. |
| | 40 CFR Part 60, Subpart AAa | Visible particulate emissions from the baghouse shall not exhibit three (3) per cent opacity or greater as a six-minute average.<br><br>Visible particulate emissions of fugitive dust from the electric arc furnace shop due to operation of the EAF shall not exhibit six (6) per cent opacity or greater as a six-minute average.<br><br>The mass 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 permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-07 and rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in permit to install 02-12439.

**2.b** The ladle refining furnace shall be installed with a roof canopy hood fume collection sytem in addition to a direct evacuation control (DEC) system. These systems shall be capable of capturing a minimum of 99% of the generated emissions of particulate from the air contaminant source operation including electric arc heating, melting, charging, tapping, argon stirring, bulk alloy additions, alloy wire feed, manual door emissions, and steel processing in the ladle refining station.

**2.c** Particulate emissions captured by the fume collection systems for the electric arc furnace shall be exhausted to the existing EAF/LTS fabric filter control device.

## II. Operational Restrictions

**1.** The permittee shall restrict their annual liquid steel production to 650,000 tons per year, based upon a rolling, 365-day summation of the production rates.

**2.** To ensure enforceability during the first twelve months of operation following start-up, the permittee shall not exceed the following liquid steel production limits.

| Month | Total Allowable Liquid Steel Production |
|---|---|
| 1 | 55,000 tons |
| 1-2 | 110,000 tons |
| 1-3 | 165,000 tons |
| 1-4 | 220,000 tons |
| 1-5 | 275,000 tons |
| 1-6 | 330,000 tons |
| 1-7 | 385,000 tons |
| 1-8 | 440,000 tons |
| 1-9 | 495,000 tons |
| 1-10 | 550,000 tons |
| 1-11 | 605,000 tons |
| 1-12 | 650,000 tons |

After the first twelve months of operation following start-up, the permittee shall restrict the liquid steel production to 650,000 tons per year, based upon a rolling 365-day summation.

**3.** The pressure drop across the baghouse shall be maintained within the range of 3 to 6 inches of water while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall maintain daily records of the following information:

a. the liquid steel production rate for each day; and

b. beginning after the first twelve calendar months of operation following start-up, the rolling, 365-day summation of the liquid steel production rates.

Also, during the first twelve calendar months of operation following start-up, the permittee shall record the cumulative liquid steel production rate for each calendar month.

**2.** Visible particulate emissions observations of the ladle refining station (LRS) multiple-stack positive-pressure fabric filter shall occur at least once per day of operation. Observations shall be made during the electric arc heating phase of the LRS processing cycle. These observations shall be taken in accordance with Method 9 of 40 CFR Part 60, Appendix A, and shall include at least one six-minute period of the LRS electric arc heating phase in the processing cycle. The opacity shall be recorded for the stack(s) where the greatest opacity of the visible emissions are observed in accordance with the procedures listed in Method 9 of 40 CFR Part 60, Appendix A. Records shall be maintained of all the visible particulate emissions observed. (40 CFR Part 60 Subpart AAa requires these opacity observations).

**3.** The permittee shall operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring devices shall be calibrated, operated and maintained in accordance with the permittee's operating procedures and/or manuals. The permittee shall record the pressure drop across the baghouse on a daily basis.

## IV. Reporting Requirements

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

**2.** The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day liquid steel production rate limitation and, for the first 12 calendar months of operation following start-up, all exceedances of the allowable cumulative liquid steel production levels for this emissions unit.

## IV. Reporting Requirements (continued)

**3.** The permittee shall submit deviation (excursion) reports that identify all exceedances of the visible particulate emission limit for the fabric filter control device. For the purpose of these reports, an exceedance is defined as any six-minute period during which the average opacity is three percent or greater.

## V. Testing Requirements

**1.** Emissions Limitation:
PE: 0.92 pound per hour (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine actual particulate emission rate for the LRS, the following equations shall be used:

a. E1(stack emissions) = (619,584 scfm) (tested emission rate in gr/scf) (1pound/7000 grains) (60 minutes/hr) (0.05)

where,

E1 = particulate emissions from baghouse (pounds/hour)

619,584 SCFM = maximum baghouse flow rate

0.05 = assumed percent flow attributable to LRS (emissions unit P906)

b. E2 (fugitive emissons) = (tons of steel produced/hour) (1.4 pounds PE/ton of steel) (1-0.99) (0.05)

where,

E2 = fugitive particulate emissions (pounds/hour)

95.0 tons steel/ hour = maximum hourly steel processing capacity

1.4 pounds PE/ton steel = emission factor (AP-42 Section 12.5, Table 12.5-1, electric arc furnace charging, tapping, and slagging, Iron and Steel Production, 10/86)

0.05 = assumed percent of total fugitive emissions attributable to LRS (emissions unit P906)

0.99 = capture efficiency for direct evacuation fume collection system

c. Etotal = E1 + E2

where,

Etotal = total hourly PE emissions from LRS (pounds/hour)

E1 = particulate emissions from baghouse (pounds/hour)

E2 = fugitive particulate emissions (pounds/hour)

## V. Testing Requirements (continued)

**2.** Emissions Limitation:
PE: 3.95 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine actual baghouse particulate emission rate for the LRS, the following equations shall be used:

a. E1(stack emissions) = (619,584 SCFM) (tested emission rate in gr/scf) (1pound/7000 grains) (60 minutes/hr) (8760 hours/year) (1 ton/2000 pounds) (0.05)

where,

E1 = particulate emissions from baghouse (tons/year)

619,584 SCFM = maximum baghouse flow rate

0.05 = assumed percent flow attributable to LRS (emissions unit P906)

b. E2 (fugitive emissions) = (tons of steel produced/year) (1.4 pounds PE/ton of steel) (1-0.99) (1ton/2000 pounds) (0.05)

where,

E2 = fugitive particulate emissions (tons/year)

1.4 pounds PE/ton steel = emission factor (AP-42 Section 12.5, Table 12.5-1, electric arc furnace charging, tapping, and slagging, Iron and Steel Production, 10/86)

0.05 = assumed percent of total fugitive emissions attributable to LRS (emissions unit P906)

0.99 = capture efficiency for direct evacuation fume collection system

c. Etotal = E1 + E2

where,

Etotal = total annual PE emissions from LRS (tons/year)

E1 = particulate emissions from baghouse (tons/year)

E2 = fugitive particulate emissions (tons/year)

## V. Testing Requirements (continued)

**3.** Emissions Limitation:
PM10: 0.70 pound per hour (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine the hourly PM10 emission rate for the LRS the following equation shall be used:

E = (Etotal) (0.76)

where,

E = hourly PM10 emissions (lbs/hour)

Etotal = total hourly PE emissions from LRS, as determined in Section A.V.1.

0.76 = fraction of total PE emissions assumed to be PM10 (factor supplied by the company in the application for PTI 02-12439 and is based upon a test of a similar EAF at CSC)

If required by the Ohio EPA, compliance with the PM10 emission rate shall be determined in accordance with 40 CFR Part 51, Appendix M, Methods 201or 201A.

**4.** Emissions Limitation:
PM10: 3.0 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine the annual PM10 emission rate for the LRS the following equation shall be used:

E = (Etotal) (0.76)

where,

E = annual PM10 emissions (tons/year)

Etotal = total annual PE emissions from LRS, as determined in Section A.V.2.

0.76 = fraction of total PE emissions assumed to be PM10 (factor supplied by the company in the application for PTI 02-12439 and is based upon a test of a similar EAF at CSC)

**5.** Emissions Limitation:
NOx: 4.75 pounds per hour and 0.05 pound per ton of steel (includes stack and fugitive emissions)

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the NOx emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 7 or 7E.

**6.** Emissions Limitation:
NOx: 16.3 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine annual NOx emissions rate for the LRS the following equation shall be used:

E = (0.05 pound NOx/ton of steel) (tons of steel produced/year) (1ton/2000 pounds)

E = NOx emissions (tons/yr)

0.05 pound NOx/ton of steel = NOx emission factor (emission factor provided by permittee in PTI# 02-12439 application)

## V. Testing Requirements (continued)

**7.** Emissions Limitation:
CO: 47.5 pounds per hour and 0.5 pound per ton of steel (includes stack and fugitive emissions)

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the CO emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 10.

**8.** Emissions Limitation:
CO: 162.5 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine annual CO emissions rate for the LRS the following equation shall be used:

E = (0.5 pound CO/ton of steel) (tons of steel produced/year) (1ton/2000 pounds)

E = CO emissions (tons/yr)

0.5 pound CO/ton of steel = CO emission factor (emission factor provided by permittee in PTI# 02-12439 application)

**9.** Emissions Limitation:
SO2: 9.5 pounds per hour and 0.10 pound per ton of steel (includes stack and fugitive emissions)

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the SO2 emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 6 or 6C.

**10.** Emissions Limitation:
SO2: 32.5 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine annual SO2 emissions rate for the LRS the following equation shall be used:

E = (0.10 pound SO2/ton of steel) (tons of steel produced/year) (1ton/2000 pounds)

E = SO2 emissions (tons/yr)

0.10 pound SO2/ton of steel = emission factor (AP42 Section 12.5, Table 12.5-1, Iron and Steel Production, 10/86)

**11.** Emissions Limitation:
Pb: 0.02 pound per hour (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine hourly Pb emissions rate for the LRS the following equation shall be used:

E = (Etotal) ( 0.017)

where,

E = Pb emissions (lb/hr)

Etotal = total hourly PE emissions from LRS, as determined in Section A.V.1

0.017 = the average Pb content of the baghouse dust as a weight fraction

If required by the Ohio EPA, compliance with the Pb emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 29.

## V. Testing Requirements (continued)

**12.** Emissions Limitation:
Pb: 0.07 ton per year (includes annual emissions from stack and fugitives)

Applicable Compliance Method:
To determine annual Pb emissions rate for the LRS the following equation shall be used:

E = (Etotal) ( 0.017)

where,

E = Pb emissions (tons/yr)

Etotal = total annual PE emissions from LRS, as determined in Section A.V.2

0.017 = the average Pb content of the baghouse dust as a weight fraction

**13.** Emissions Limitation:
Visible emissions from the stack shall not exceed three percent opacity, as a six-minute average.

Applicable Compliance Method:
Compliance with the allowable visible emissions limitations shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03.

**14.** Emissions Limitation:
Visible emissions of fugitive dust shall not exceed six percent opacity, as a six-minute average.

Applicable Compliance Method:
Compliance with the visible emission limitation for the ladle refining station operation(s) 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 paragraph (B)(3)(b) of OAC rule 3745-17-03.

**15.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted between years 2 and 3 after issuance of the permit and within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and sulfur dioxide.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1-5 and 6 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northeast District Office.

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

## V. Testing Requirements (continued)

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**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:** Alloy, Additives and Flux Handling (P907)

**Activity Description:** Storage silos, storage bins, trim bins, and batch holding 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Alloy, additives, and flux handling system (with three storage silos [for flux and ladle carbon] equipped with bin vents, six alloy storage bins, six alloy trim bins, and five alloy batch holding bins) | OAC rule 3745-31-05(A)(3)<br>PTI No. 02-13098 | PE: 0.46 ton per year (includes stack and fugitive emissions) and 0.01 grain per dry standard cubic foot of exhaust gases from the storage silo bin vents<br><br>PM10: 0.26 ton per year (includes stack and fugitive emissions)<br><br>Visible particulate emissions from the storage silo bin vent exhausts shall not exceed six percent opacity, as a six-minute average.<br><br>Visible emissions of fugitive dust from the dumping of alloy and charge carbon into the receiving hopper shall not exceed six percent opacity, as a six-minute average.<br><br>Visible emissions of fugitive dust from the alloy handling operations (i.e., the storage bins, trim bins, and batch holding bins) shall not exceed six percent opacity, as a six-minute average.<br><br>See A.I.2.a through A.I.2.d. |
| | OAC rule 3745-17-07 | The emission limitations specified by this rule are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3). |
| | OAC rule 3745-17-08 | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3). |

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| | 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 flux and ladle carbon are transferred pneumatically to storage. The pneumatic system shall be adequately enclosed so as to eliminate, at all times, visible emissions of fugitive dust. Any visible emissions of dust emanating from the delivery vehicle shall be cause for the immediate halt of the unloading process and the refusal of the material load until the situation is corrected.

**2.b** The flux and ladle carbon silos shall be adequately enclosed and vented to bin vent fabric filters. The enclosures shall be sufficient to eliminate, at all times, any visible emissions of fugitive dust from the enclosure.

**2.c** Alloys, additives, and charge carbon are dumped into a receiving hopper. The receiving hopper shall be enclosed on all sides with an opening for the truck. At the opening, overlapping plastic sheets shall be draped to allow for passage of the truck while maintaining the enclosure.

**2.d** The six alloy storage bins shall be loaded by an enclosed conveyor. The six alloy trim bins shall be loaded by means of an enclosed conveyor and a movable hopper. The five alloy batch holding bins shall be loaded by means of an enclosed conveyor and a rotary loading spout. After loading, the storage bins, trim bins, and batch holding bins shall be covered. The enclosures shall be sufficient to minimize, at all times, visible emissions of fugitive dust at all transfer points.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall maintain annual records of the operating hours for the silo loading operations. The records may be maintained in computerized form.

**2.** The permittee shall maintain records of the quantities of all alloys, additives, and flux materials received during each calendar year. The records may be maintained in computerized form.

**3.** The permittee shall maintain records of all the time periods when the silos were not vented to the silo bin vent control devices.

**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 any non-stack egress point (e.g., windows, doors, roof monitors, conveyors, hopper, etc.) and/or from the storage silo bin vents associated with this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate 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 particulate emission incident; and
e. any corrective actions taken to eliminate the visible particulate emissions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which:

a. identify all days during which any visible particulate emissions were observed from any non-stack egress point and/or the storage silo bin vents associated with this emissions unit; and

b. describe any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

**2.** The permittee shall submit semiannual written reports which identify all time periods when the silos were not vented to the silo bin vent control devices.

These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Emissions Limitation:
PE: 0.01 grain per dry standard cubic foot of exhaust gases from the storage silo bin vents

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the particulate emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures in OAC rule 3745-17-03.

## V. Testing Requirements (continued)

**2.** Emissions Limitation:
PE: 0.46 ton per year and PM10: 0.26 ton per year

Applicable Compliance Method:
To determine annual particulate and PM10 emissions for silos 1-3, 6 alloy storage bins, 6 alloy trim bins, and 5 alloy batch holding bins the following equations shall be used:

Silos 1-3:

This equation shall be applied to each silo for PE and PM10:

E1 = (1.286E-3 lb PE/PM10/min) (fan operating min/day) (365 day/yr) (1ton/2000 lbs)

Alloy storage bins 1-6:

These equations shall be used for determination of PE:

1. Truck dump to holding hopper

E2 = (material throughput tons/year) (7.8E-3 lb PE/ton) (1ton/2000 lbs)

2. Holding hopper to conveyor

E3 = (material throughput tons/year) (7.8E-3 lb PE/ton) (1ton/2000 lbs)

3. Rotary spout

E4 = (material throughput tons/year) (1.56E-3 lb PE/ton) (1ton/2000 lbs)

PEtotal (for alloy storage bins 1-6) = E2 + E3 + E4

These equations shall be used for determination of PM10:

1. Truck dump to holding hopper

E5 = (material throughput tons/year) (1- assumed CE) (7.4E-2 lb PM10/ton) (1 ton/2000 lbs)

CE = control efficiency

2. Holding hopper to conveyor

E6 = (material throughput tons/year) (1- assumed CE) (7.4E-2 lb PM10/ton) (1 ton/2000 lbs)

CE = control efficiency

3. Rotary spout

E7 = (material throughput tons/year) (1- assumed CE) (7.4E-2 lb PM10/ton) (1 ton/2000 lbs)

CE = control efficiency

PM10total (for alloy storage bins 1-6) = E5 + E6 + E7

## V. Testing Requirements (continued)

Alloy trim bins 1-6:

This equation shall be used for determination of PE:

1. Movable hopper to trim bins:

E8 = (material throughput tons/yr) (1- assumed CE) (1.56 E-2 lb PE/ton) (1 ton/2000 lbs)

CE = control efficiency

2. Conveyor #2

E9 = (material throughput tons/year) (7.4E-3 lb PM10/ton) (1ton/2000 lbs)

PEtotal = E8 + E9

These equations shall be used for determination of PM10:

1. Conveyor #2

E10 = (material throughput tons/year) (7.4E-3 lb PM10/ton) (1ton/2000 lbs)

2. Movable hopper to trim bins:

E11 = (material throughput tons/year) (1- assumed CE) (7.4E-3 lb PM10/ton) (1 ton/2000 lbs)

CE = control efficiency

PM10total (for alloy trim bins 1-6) = E10 + E11

Alloy batch holding bins 1-5:

This equation shall be used for determination of PE:

E12 = (material throughput tons/yr) (3.12 E-4 lb PE/ton) (1ton/2000 lbs)

This equation shall be used for determination of PM10:

E13 = (material throughput tons/yr) (3.12 E-4 lb PE/ton) (1ton/2000 lbs)

Total PE = E1 + E2 + E3 + E4 + E8 + E9 + E12

and

Total PM10 = E1 + E5 + E6 + E7 + E10 + E11 + E13

**3.** Emissions Limitation:
Visible particulate emissions from the storage silo bin vents shall not exceed six percent opacity, as a six-minute average.

Applicable Compliance Method:
Compliance with the allowable visible emissions limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03 (B)(1).

## V. Testing Requirements (continued)

**4.** Emissions Limitation:
Visible particulate emissions of fugitive dust from the dumping of alloy and charge carbon into the receiving hopper shall not exceed six percent opacity, as a six-minute average.

Applicable Compliance Method:
Compliance with the allowable visible emissions limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03 (B)(3).

**5.** Emissions Limitation:
Visible particulate emissions of fugitive dust from the alloy handling operations (i.e., alloy storage bins, alloy trim bins, and batch holding bins) shall not exceed six percent opacity, as a six-minute average.

Applicable Compliance Method:
Compliance with the allowable visible emissions limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03 (B)(3).

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

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

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

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