**John R. Kasich**, Governor
**Mary Taylor**, Lt. Governor
**Scott J. Nally**, Director

2/5/2013

Certified Mail

Facility ID: 1318171623
Permit Number: P0111767
County: Cuyahoga

Mr. Mike Bellantis
Charter Steel - Cleveland Inc
4300 East 49th Street
Cuyahoga Heights, OH 44125

RE: FINAL AIR POLLUTION CONTROL TITLE V PERMIT
Permit Type: Administrative Permit Modification

Dear Permit Holder:

Enclosed is a finalOhio Environmental Protection Agency (EPA) Air Pollution 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. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

**How to appeal this permit**

The issuance of this Title V permit is a final action of the Director 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. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of $70.00, made payable to “Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General□□s Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, OH 43215

**How to save money, reduce pollution and reduce energy consumption**

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 Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

**How to give us feedback on your permitting experience**

Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

**How to get an electronic copy of your permit**

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

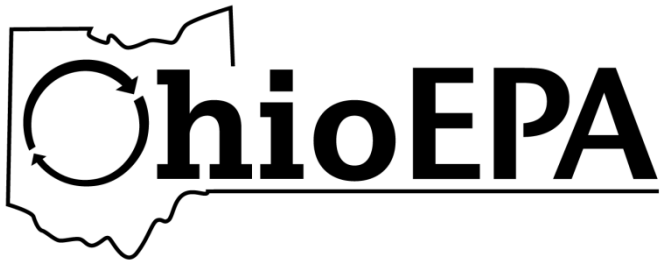
If you have any questions regarding this permit, please contact the Cleveland Division of Air Quality as indicated on page one of your permit.

Sincerely,

Michael W. Ahern

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

Cc: U.S. EPA Region 5*Via E-Mail Notification*
Cleveland Division of Air Quality




# FINAL

# Division of Air Pollution Control
# Title V Permit
for
Charter Steel - Cleveland Inc

| | |
|---|---|
| Facility ID: | 1318171623 |
| Permit Number: | P0111767 |
| Permit Type: | Administrative Permit Modification |
| Issued: | 2/5/2013 |
| Effective: | 2/5/2013 |
| Expiration: | 9/30/2016 |

**Division of Air Pollution Control**
**Title V Permit**
for
Charter Steel - Cleveland Inc

**Table of Contents**

# Authorization

| | |
|---|---|
| Facility ID: | 1318171623 |
| Facility Description: | Steel Billet manufacturing. |
| Application Number(s): | M0001948 |
| Permit Number: | P0111767 |
| Permit Description: | Title V administrative permit amendment for emissions units P900 - P902 per request by U.S. EPA Administrative Consent Order EPA 5-12-113(a)-OH-03 to revise the meltshop baghouse pressure drop language. The pressure drop ranges will be established as 15-minute averages, based on the results of the most recent compliance test demonstration. Additionally, amendment of the Title V permit for the VOD (P043) in accordance with the PTI administrative modification P0109216 issued on 02/01/2012. |
| Permit Type: | Administrative Permit Modification |
| Issue Date: | 2/5/2013 |
| Effective Date: | 2/5/2013 |
| Expiration Date: | 9/30/2016 |
| Superseded Permit Number: | P0104583 |

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

Charter Steel - Cleveland Inc
4300 East 49th Street
Cuyahoga Heights, OH 44125-1004

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

Cleveland Division of Air Quality
2nd Floor
75 Erieview Plaza
Cleveland, OH 44114
(216)664-2297

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Cleveland Division of Air Quality. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months (540 days) and no later than 6 months (180 days) prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
Director

# A. Standard Terms and Conditions

## 1. Federally Enforceable Standard Terms and Conditions

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

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

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

(3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting

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

*(Authority for term: ORC 3704.036(A))*

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

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

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

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

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

(4) The analytical techniques or methods used.

(5) The results of such analyses.

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

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

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

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

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

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

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

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

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

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

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

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

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive

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

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

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

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

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

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

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

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

insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

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

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

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

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

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

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

(5) Reports of any required monitoring and/or record keeping information shall be submitted to Cleveland Division of Air Quality.

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

**3. Scheduled Maintenance**

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

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

**4. Risk Management Plans**

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

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

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

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

**5. Title IV Provisions**

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

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

**6. Severability Clause**

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

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

**7. General Requirements**

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

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

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

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

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

Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

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

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

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

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

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

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

**8. Fees**

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

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

**9. Marketable Permit Programs**

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

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

**10. Reasonably Anticipated Operating Scenarios**

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

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

**11. Reopening for Cause**

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

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

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

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

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

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

**12. Federal and State Enforceability**

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

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

**13. Compliance Requirements**

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

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

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

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

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

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

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

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

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

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

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

(2) Compliance certifications shall include the following:

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

b. The permittee's current compliance status.

c. Whether compliance was continuous or intermittent.

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

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

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

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

**14. Permit Shield**

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

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

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

**15. Operational Flexibility**

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

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

**16. Emergencies**

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

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

**17. Off-Permit Changes**

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

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

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

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

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

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

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

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

**18. Compliance Method Requirements**

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

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

**19. Insignificant Activities or Emissions Levels**

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

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

**20. Permit to Install Requirement**

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

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

**21. Air Pollution Nuisance**

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

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

**22. Permanent Shutdown of an Emissions Unit**

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

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

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

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

**23. Title VI Provisions**

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

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

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

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

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

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

The permittee shall submit required reports in the following manner:

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

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

**25. Records Retention Requirements Under State Law Only**

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

**26. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of

a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

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

**27. Scheduled Maintenance/Malfunction Reporting**

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

**28. Permit Transfers**

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

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

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

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

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

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

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

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

# B. Facility-Wide Terms and Conditions

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

   a) 5., 6. and 7. (air toxics terms)

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

| | |
|---|---|
| B016 | Emergency electrical generator. Permit by Rule – (OAC 3745-31-03(A)(4)(b)); |
| F004 | Storage of dust from shakedown of the Melt Shop Baghouse. (PTI #13-04176); |
| P035 | Natural Gas fired ladle preheater and dryer. (PTI #P0107611); |
| P036 | Natural Gas fired ladle preheater and dryer. (PTI # P0107611); |
| P037 | Natural Gas fired ladle preheater and dryer. (PTI # P0107611); |
| P038 | Natural Gas fired ladle preheater and dryer. (PTI # P0107611); |
| P041 | Natural gas cut off torch consisting of 4 cut-off torches that operate in tandem. (PTI # P0107611); |
| P044 | Storage of carbon additive for steel alloying. (PTI #13-04176); and |
| P045 | Storage of lime powder additive for steel alloying. (PTI #13-04176) |

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

   [Authority for term: OAC rule 3745-77]

3. Pursuant to 40 CFR Part 64, the permittee has submitted and the Ohio EPA has approved a compliance assurance monitoring (CAM) plan for emissions units P900, P901 and P902. The permittee shall comply with the provisions of the plan during any operation of the aforementioned emissions unit.

   [Authority for term: 40 CFR Part 64]

4. The following emissions units contained in this permit are subject to 40 CFR Part 63, Subpart YYYYY: P900. The complete MACT requirements, including the General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the Cleveland Division of Air Quality.

   [Authority for term: 40 CFR Part 63 Subpart YYYYY]

5. The permit to install for this emissions unit was evaluated based on the actual materials (coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the “worst case” pollutant:

Aluminum:
0.825 lb/hour
TWA: 10 mg/$m^3$
Molecular Weight: 26.98
TLV = 10 mg/$m^3$
MAGLC = 238.095 µg/$m^3$
Maximum Concentration = 0.964µg/$m^3$< 238.095 µg/$m^3$

Calcium Oxide:
3.196 lbs/hour
TWA: 2.0 mg/$m^3$
Molecular Weight: 56.08
TLV = 2.0 mg/$m^3$
MAGLC = 47.69 µg/$m^3$
Maximum Concentration = 3.945µg/$m^3$< 47.69 µg/$m^3$

Carbon Black:
0.842 lb/hour
TWA: 3.5 mg/$m^3$
Molecular Weight: -
TLV = 3.5 mg/$m^3$
MAGLC = 83.33 µg/$m^3$
Maximum Concentration = 0.983µg/$m^3$< 83.33 µg/$m^3$

Iron:
0.915 lb/hour
TWA: 5.0 mg/$m^3$
Molecular Weight: 159.70
TLV = 5.0 mg/$m^3$
MAGLC = 119.048 µg/$m^3$
Maximum Concentration = 1.069µg/$m^3$< 119.048 µg/$m^3$

[Authority for term: OAC rule 3745-114 and PTI#13-04176]

6. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the “Air Toxic Policy” is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the “Air Toxic Policy” will still be satisfied. If, upon evaluation, the permittee determines that the “Air Toxic Policy” will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the “Air Toxic Policy” include the following:

   a. changes in the composition of the materials used (inks, coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and,

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

[Authority for term: OAC rule 3745-114 and PTI#13-04176]

7. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and,

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

[Authority for term: OAC rule 3745-114 and PTI#13-04176]

8. For the dust-handling system located at this facility, including dust-handling equipment associated with P900 and F004, the permittee shall not discharge into the atmosphere any gases that exhibit 10 percent opacity or greater. In accordance with 40 CFR Part 60, Subpart AAa, the definition of "dust-handling system" is as follows:

*Dust-handling system* means equipment used to handle particulate matter collected by the control device for an electric arc furnace or AOD vessel subject to this subpart. For the purposes of this subpart, the dust-handling system shall consist of the control device dust hoppers, the dust-conveying equipment, any central dust storage equipment, the dust-treating equipment (e.g., pug mill, pelletizer), dust transfer equipment (from storage to truck), and any secondary control devices used with the dust transfer equipment.

Applicable Compliance Method

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in 40 CFR Part 60 Subpart AAa.

[Authority for term: 40 CFR Part 60 Subpart AAa and PTI#13-04176]

# C. Emissions Unit Terms and Conditions

**1. B008, VOD Boiler**

**Operations, Property and/or Equipment Description:**

28.576 mmBtu/hr natural gas boiler for the VOD system equipped with a low NOx burner

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| a. | OAC rule 3745-31-05(A)(3)<br>(PTI #13-04176 issued February 12, 2008) | Sulfur dioxide (SO2) emissions shall not exceed 0.02 lb/hr and 0.07 ton/year.<br>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31- (10) thru (20), OAC rule 3745-18-06(A), and OAC rule 3745-17-07(A)(1). |
| b. | OAC rule 3745-31-10 thru 20 | PM/PM10 emissions shall not exceed 0.21 lb/hr and 0.93 ton/year.<br>Carbon monoxide (CO) emissions shall not exceed 2.35 lbs/hr and 10.3 tons/year.<br>Organic compound (OC) emissions shall not exceed 0.31 lbs/hr and 1.35 tons/year.<br>Nitrogen oxide (NOx) emissions shall not exceed 2.80 lbs/hr and 12.27 tons/year.<br>Volatile Organic Compounds (VOC) emissions shall not exceed 0.15 lb/hr and 0.68 ton/year.<br>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).<br>See b)(2)b. |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| c. | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| d. | OAC rule 3745-17-10(B)(1) | The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| e. | OAC rule 3745-18-06(A) | Exempt pursuant to OAC rule 3745-18-06(A) when burning natural gas |
| f. | OAC rule 3745-21-07(B) | See b)(2)c. |
| g. | 40 CFR 60 Subpart Dc | See b)(2)a. |
| h. | OAC rule 3745-110-03(C) | See d)(2). |

(2) Additional Terms and Conditions

a. So long as only natural gas fuel is burned, this emissions unit is not subject to the emission limits listed in 40 CFR Part 60, Subpart Dc.

b. Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that the use of natural gas as fuel, acceptance of a NOx limitation of 100 lb of NOx/MMcf and acceptance of a CO limitation of 84 lb of CO/MMcf constitutes BACT for this emission unit. The emissions limits based on the BACT requirements are listed under OAC rule 3745-31-(10) thru (20) above.

c. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-07(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3).

d. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-

approved SIP for Ohio. The requirements of amended OAC rule 3745-21-07 do not apply to emissions units that are installed after February 18, 2008. The following terms and conditions shall become void after U.S. EPA approves the rule revision: b)(1)f., b)(2)c.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI#13-04176]

d) Monitoring and/or Recordkeeping 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

(2) The owner or operator of a small boiler must annually perform a tune-up and maintain, in a permanently bound log book, or other format approved in writing by the director the following information:

a. the date of the last tune-up;

b. the name, title and affiliation of the person who performed the tune-up and made any adjustments; and

c. any other information which the Ohio Environmental Protection agency may require as a condition of approval of any permit for the boiler.

[Authority for term: OAC rules 3745-77-07(C)(1) and 3745-110-03(C)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

f) Testing Requirements

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

a. Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

b. Emission Limitation:

PM/PM10 emissions shall not exceed 0.21 lb/hr.

Applicable Compliance Method:

When firing natural gas, compliance shall be determined by multiplying an emission factor of 7.6 lbs of particulates/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.02802 mm cu. ft./hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9) while firing natural gas.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

c. Emission Limitation:

0.93 TPY of PM/PM10

Applicable Compliance Method(s):

The ton per year limitation was developed by multiplying the hourly particulate emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

d. Emission Limitation:

CO emissions shall not exceed 2.35 lbs/hr.

Applicable Compliance Method(s):

When firing natural gas, compliance shall be determined by multiplying an emission factor of 84 lbs of CO/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.02802 mm cu. ft./hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, the permittee shall demonstrate compliance with the lbs/hr emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10 while firing natural gas.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

e. Emission Limitation:

10.3 TPY of CO emissions

Applicable Compliance Method(s):

The ton per year limitation was developed by multiplying the hourly CO emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

f. Emission Limitation:

NOx emissions shall not exceed 2.80 lbs/hr.

Applicable Compliance Methods:

When firing natural gas, compliance shall be determined by multiplying an emission factor of 100 lbs of NOx/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.02802 mm cu. ft./hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, the permittee shall demonstrate compliance with the lbs/hr emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 while firing natural gas.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

g. Emission Limitation:

12.27 TPY of NOx emissions

Applicable Compliance Method(s):

The ton per year limitation was developed by multiplying the hourly NOx emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

h. Emission Limitation:

OC emissions shall not exceed 0.31 lb/hr.

Applicable Compliance Methods:

When firing natural gas, compliance shall be determined by multiplying an emission factor of 11 lbs of OC/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.02802 mm cu. ft./hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

i. Emission Limitation:

1.35 TPY of OC emissions

Applicable Compliance Method(s):

The ton per year limitation was developed by multiplying the hourly particulate emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

j. Emission Limitation:

VOC emissions shall not exceed 0.15 lb/hr.

Applicable Compliance Method:

When firing natural gas, compliance shall be determined by multiplying an emission factor of 5.5 lbs of VOC/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.02802 mm cu. ft./hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, the permittee shall demonstrate compliance with the lbs/hr emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or 25A while firing natural gas.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

k. Emission Limitation:

0.68 TPY of VOC emissions

Applicable Compliance Method:

The ton per year limitation was developed by multiplying the hourly VOC emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

l. Emission Limitation:

SO2 emissions shall not exceed 0.02 lb/hr.

Applicable Compliance Methods:

When firing natural gas, compliance shall be determined by multiplying an emission factor of 0.6 lb of SO2/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.02802 mm cu. ft./hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, the permittee shall demonstrate compliance with the lbs/hr emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 while firing natural gas.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

m. Emission Limitation:

0.07 TPY of SO2 emissions

Applicable Compliance Method(s):

The ton per year limitation was developed by multiplying the hourly SO2 emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

g) Miscellaneous Requirements

(1) None.

**2. F002, Roadways and Parking**

**Operations, Property and/or Equipment Description:**

Paved roadways and parking areas and unpaved roadways and parking areas

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| | **Paved roadways and parking areas** | |
| a. | OAC rule 3745-31-05(A)(3)<br>(PTI #13-04176 issued February 12, 2008) | The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-(10) thru (20). |
| b. | OAC rule 3745-31-10 thru 20 | 6.40 tons/year of PM emissions<br>3.62 tons/year of $PM_{10}$ emissions<br>no visible particulate emissions except for 1 minute during any 60-minute period<br>best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see b)(2)c., and b)(2)e. through b)(2)i.<br>See b)(2)j. |
| c. | OAC rule 3745-17-07(B)(4) | The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| d. | OAC rule 3745-17-08(B), (B)(8), (B)(9) | The control measures specified by these rules are less stringent than the control measures established pursuant to OAC rule 3745-31-05(A)(3). |
| | **Unpaved roadways and parking areas** | |
| e. | OAC rule 3745-31-05(A)(3) (PTI #13-04176 issued February 12, 2008) | The requirements of this rule also include compliance with the requirements and OAC rule 3745-31- (10) thru (20). |
| f. | OAC rule 3745-31-10 thru 20 | 4.43 tons/year of PM emissions<br>2.40 tons/year of $PM_{10}$ emissions<br>no visible emissions, except for three minutes during any 60-minute period<br>best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see b)(2)d. through b)(2)i.)<br>See b)(2)j. |
| g. | OAC rule 3745-17-07(B)(5) | The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| h. | OAC rule 3745-17-08(B), (B)(2) | The control measures specified by these rules are less stringent than the control measures established pursuant to OAC rule 3745-31-05(A)(3). |

(2) Additional Terms and Conditions

a. The paved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:

2.98 miles of paved roadways:

b. The unpaved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:

0.22 miles of unpaved roadways:

c. The permittee shall employ best 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 flushing with water at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

d. The permittee shall employ best 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 at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

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.

f. 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.

g. 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.

h. 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.

i. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05.

j. Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that the use of reduced speed limits and water flushing for control constitutes BACT for this emission unit. The emissions limits based on the BACT requirements are listed under OAC rule 3745-31-(10) thru (20) above.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) Except as otherwise provided in this section, the permittee shall perform daily inspections of all the roadways and parking areas.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

(2) The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

(3) The permittee may, upon receipt of written approval from the Cleveland Division of Air Quality, 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

(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 d)(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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

e) Reporting Requirements

(1) The permittee shall submit deviation reports to the Cleveland Division of Air Quality 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

f) Testing Requirements

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

a. Emission Limitation:

no visible particulate emissions except for 1 minute during any 60-minute period for paved roadways

Applicable Compliance Method:

Compliance with the emission limitation for the paved 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

b. Emission Limitation:

no visible particulate emissions except for 3 minutes during any 60-minute period for unpaved roadways

Applicable Compliance Method:

Compliance with the emission limitation for the 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

c. Emission Limitation -

Unpaved Roads

PM emissions, 4.43 TPY

PM10 emissions, 2.4 TPY

Applicable Compliance Method -

The TPY emission limitation shall be based on calculations using the equation 1 for Unpaved Roadways and Parking areas taken from U.S. EPA reference document AP-42, 5th edition, Compilation of Air Pollution Emission Factors, Section 12.5-4 (1/95) to establish the emission factor in lb/VMT. The emission factors are 14.0 lb/VMT for PM emissions and 7.6 lb/VMT for PM10 emissions. This emission factor is multiplied by the annual vehicle miles traveled (VMT) and (1-0.50) to account for the 50% watering emission control efficiency and (1-0.80) to account for the 80% vehicle speed control efficiency and divided by the factor of 2,000 lbs/ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

d. Emission Limitation –

Paved Roads

PM emissions, 6.4 TPY

PM10 emissions, 3.62 TPY

Applicable Compliance Method -

The TPY emission limitation shall be based on calculations using the equation 1 for Paved Roadways and Parking areas taken from U.S. EPA reference document AP-42, 5th edition, Compilation of Air Pollution Emission Factors, Section 12.5-4 (1/95) to establish the emission factor in lb/VMT. The calculated emission factors are;0.78 lb/VMT for PM emissions and 0.44 lb/VMT for PM10 emissions. This emission factor is multiplied by the annual vehicle miles traveled (VMT) and (1-0.80) to account for the 80% vehicle speed control efficiency and divided by the factor of 2,000 lbs/ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

g) Miscellaneous Requirements

(1) None.

### 3. F003, Charge Handling

**Operations, Property and/or Equipment Description:**

Charge handling of steel scrap handling of steel scrap is conducted inside of a building.

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| a. | OAC rule 3745-31-05(A)(3)<br>(PTI #13-04176 issued February 12, 2008) | The requirements of this rule also include compliance with the requirements of OAC rule 3745-31- (10) thru (20). |
| b. | OAC rule 3745-31-10 thru 20 | 2.52 lbs/hr and 8.12 TPY of PM/PM10 emissions<br>Visible emissions of fugitive dust shall not exceed 5% opacity as a six-minute average.<br>best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br>See b)(2)a. |
| c. | OAC rule 3745-17-07(B)(1) | The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| d. | OAC rule 3745-17-08(B) | The control measures specified by this rule are equivalent to the control measures established pursuant to OAC rule 3745-31-05(A)(3). |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| e. | 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

a. Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that the use of a building for partial capture along with work practices constitutes BACT for this emission unit. The emissions limits based on the BACT requirements are listed under OAC rule 3745-31-(10) thru (20) above.

c) Operational Restrictions

(1) The maximum annual charge rate for this emissions unit shall not exceed 772,391 tons, based upon a rolling, 12-month summation of the tons of scrap steel charged per month.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI#13-04176]

(2) The permittee shall operate this emissions unit in accordance with the Scrap Management Program (SMP) submitted on July 3, 2008 to the Cleveland Division of Air Quality (Cleveland DAQ) to allow the minimal use of scrap charged in the EAF that contains mercury, lead, oils, plastics, and organic materials. The SMP shall be viewed as an operational restriction for the EAF. Any future change to the SMP that would increase the amount of these compounds present in the scrap, or result in the emissions of an air contaminant not previously emitted, must be approved by the Cleveland DAQ.

All grades of scrap shall be free of excessive dirt, oil, and grease. Heavily oiled scrap shall not be used. As part of the SMP, the permittee shall install a radionuclide detector which will be used to inspect all incoming scrap material into the facility. Radioactive scrap material shall not be used at this facility. Any scrap material which is determined to be radioactive shall be disposed of in accordance with the Nuclear Regulatory Commission’s (NRC) requirements.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI#13-04176]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain daily charge rate records for this emissions unit. These records, at a minimum, shall contain the following information:

a. the number of hours this emissions unit was in operation; and

b. the tons of steel scrap charged.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

(2) The permittee shall maintain monthly records of the tons of steel scrap charged during each calendar month, as well as the rolling, 12-month summation of scrap charged.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland DAQ which identify all exceedances of the rolling, 12-month steel scrap charge rate limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

f) Testing Requirements

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

a. Emission Limitation:

2.52 lbs/hr of PM/PM10 emissions

Applicable Compliance Method:

Compliance with the hourly emission limitation may be determined through the use of the emission factor taken from the "Inventory of Iron Foundry Emissions", A.T. Kearney Report for Raw material handling and Charge make-up (0.07 lb/ton) which is multiplied by the maximum hourly charge rate for the emissions unit (120 tons/hr) and (1-0.70) which is the 70% control efficiency of scrap steel handling conducted inside of the building enclosure as well as work practices.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

b. Emission Limitation:

8.12 TPY of PM/PM10 emissions

Applicable Compliance Method:

The ton per year emissions shall be determined by multiplying the emission factor taken from the "Inventory of Iron Foundry Emissions", A.T. Kearney Report for Raw material handling and Charge make-up (0.07 lb/ton) by the actual annual steel scrap charge rate for the emissions unit, (1-0.70) which is the 70% control

efficiency of scrap steel handling conducted inside of the building enclosure as well as work practices and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance with the annual steel scrap charge limitation based upon a rolling, 12-month summation is met.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

c. Emission Limitation:

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

Applicable Compliance Method

Compliance with the visible emission limitations 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)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

g) Miscellaneous Requirements

(1) None.

**4. P029, Bar Mill Reheat Furnace**

**Operations, Property and/or Equipment Description:**

165 mmBtu/hr natural gas fired Bar Mill reheat furnace to equalize billet temperature prior to rolling

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| a. | OAC rule 3745-31-05(A)(3)<br><br>(PTI #13-02840 issued March 2, 2004) | Particulate emissions (PE) shall not exceed 7.80 lbs/hr and 34.16 tons/year.<br><br>Carbon monoxide (CO) emissions shall not exceed 13.60 lbs/hr and 59.56 tons/year.<br><br>Nitrogen oxide (NOx) emissions shall not exceed 18.15 lbs/hr and 79.50 tons/year.<br><br>Volatile Organic Compounds (VOC) emissions shall not exceed 0.89 lb/hr and 3.90 tons/year.<br><br>Sulfur dioxide (SO2) emissions shall not exceed 0.10 lb/hr and 0.44 tons/year.<br><br>Lead (Pb) emissions shall not exceed 2.11 lbs/hr and 9.24 tons/year.<br><br>Visible particulate emissions shall not exceed 5% opacity, as a 6-minute average. |
| b. | OAC rule 3745-17-07(A)(1) | The visible particulate emission limitation specified by this rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| c. | OAC rule 3745-17-11(B) | The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| d. | OAC rule 3745-110-03(I) | Nitrogen oxide (NOx) emissions shall not exceed 0.11 lb/mmBtu of actual heat input. |

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI#13-02840]

d) Monitoring and/or Recordkeeping 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-02840]

(2) The permittee shall maintain records of the annual amount of steel processed in this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-02840]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-02840]

f) Testing Requirements

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

a. Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-02840]

b. Emission Limitation:

Particulate emissions shall not exceed 7.80 lbs/hr.

Applicable Compliance Method:

The permittee performed emissions testing in 2002 which provided an emission factor of 0.052 lb of particulate emissions per ton of steel processed. Compliance may be determined by multiplying this emission factor by the actual hourly process weight rate (in tons/hr).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9) while firing natural gas.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-02840]

c. Emission Limitation:

34.16 TPY of particulate emissions

Applicable Compliance Method(s):

Compliance shall be determined by multiplying the 2002 stack test emission factor of 0.052 lb/ton of steel processed by the actual annual amount of steel material processed in this emissions unit (in tons/year) and divided by the factor of (2,000 lbs/ton).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-02840]

d. Emission Limitation:

CO emissions shall not exceed 13.60 lbs/hr.

Applicable Compliance Methods:

When firing natural gas, compliance may be determined by multiplying an emission factor of 84 lbs of CO/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.162 mm cu. ft./hr). The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, the permittee shall demonstrate compliance with the lbs/hr emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10 while firing natural gas.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-02840]

e. Emission Limitation:

59.56 TPY of CO emissions

Applicable Compliance Method(s):

The ton per year limitation was developed by multiplying the hourly CO emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-02840]

f. Emission Limitation:

NOx emissions shall not exceed 18.15 lbs/hr.

Applicable Compliance Methods:

The permittee performed emissions testing in 2002 which provided an emission factor of 112.2 lbs of NOx emissions/mmcu.ft. Compliance may be determined by multiplying this emission factor by the by the emissions unit's maximum hourly natural gas firing rate (0.162 mm cu. ft./hr).

If required, the permittee shall demonstrate compliance with the lbs/hr emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 while firing natural gas.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-02840]

g. Emission Limitation:

79.50 TPY of NOx emissions

Applicable Compliance Method(s):

The ton per year limitation was developed by multiplying the hourly NOx emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-02840]

h. Emission Limitation:

VOC emissions shall not exceed 0.89 lb/hr.

Applicable Compliance Method:

When firing natural gas, compliance may be determined by multiplying an emission factor of 5.5 lbs of VOC/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.162 mm cu. ft./hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, the permittee shall demonstrate compliance with the lbs/hr emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or 25A while firing natural gas.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-02840]

i. Emission Limitation:

3.90 TPY of VOC emissions

Applicable Compliance Method:

The ton per year limitation was developed by multiplying the hourly VOC emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-02840]

j. Emission Limitation:

SO2 emissions shall not exceed 0.10 lb/hr.

Applicable Compliance Methods:

When firing natural gas, compliance may be determined by multiplying an emission factor of 0.6 lbs of SO2/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.162 mm cu. ft./hr). The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, the permittee shall demonstrate compliance with the lbs/hr emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 while firing natural gas.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-02840]

k. Emission Limitation:

0.44 TPY of SO2 emissions

Applicable Compliance Method(s):

The ton per year limitation was developed by multiplying the hourly SO2 emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-02840]

l. Emission Limitation:

2.11 lbs/hr of lead Pb emissions

Applicable Compliance Method:

The permittee performed emissions testing in 2002 which provided an emission factor of 0.0141 lb of lead emissions per ton of steel processed. Compliance may be determined by multiplying this emission factor by the actual hourly process weight rate (in tons/hr).

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1-5 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-02840]

m. Emission Limitation:

9.24 TPY of lead Pb emissions

Applicable Compliance Method:

Compliance shall be determined by multiplying the 2002 stack test emission factor of 0.0141 lb/ton of steel processed by the actual annual amount of steel material processed in this emissions unit (in tons/year) and divided by the factor of (2,000 lbs/ton).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-02840]

n. Emission Limitation:

NOx emissions shall not exceed 0.11 lb/mmBtu of actual heat input.

Applicable Compliance Methods:

The permittee shall demonstrate compliance with the lb/mmBtu emission limitation in accordance with 40 CFR Part 60, Appendix A, while firing natural gas. See f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-110-03(I)]

(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 to demonstrate compliance with the allowable mass emission rate for nitrogen oxide (NOx).

b. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate: Methods 1 through 4 and 7, 7A, 7C, 7D or 7E of 40 CFR Part 60, Appendix A for NOx. [Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.]

c. The emission testing shall be conducted while the emissions unit is operating at or near its maximum capacity.

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

Personnel from the Cleveland DAQ 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 emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ 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 Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-110-03(I)]

g) Miscellaneous Requirements

(1) None.

**5. P043, Vacuum Oxygen Degasser**

**Operations, Property and/or Equipment Description:**

100 TPH capacity Vacuum Oxygen Degasser (VOD) vessel for low carbon steel productionand decarburization of the steel

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| a. | OAC rule 3745-31-05(A)(3)<br>(PTI# P0109216 issued February 1, 2012) | The requirements of this rule also include compliance with the requirements of OAC rule 3745-31- (10) thru (20). |
| b. | OAC rule 3745-31-10 thru 20 | Emissions from the natural decarburization of the steel (uncontrolled):<br>Carbon monoxide (CO) emissions shall not exceed 16.7 lbs/hr and 59.22 TPY. |

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The maximum annual process rate for the low carbon steel productionand decarburization of the steel in this emissions unit shall not exceed 710,600 tons of steel, based upon a rolling, 12-month summation of the tons of steel produced per month.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI#P0109216]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain daily production records for this emissions unit. These records, at a minimum, shall contain the following information:

a. the number of hours this emissions unit was in operation; and

b. the tons of steel processed.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#P0109216]

(2) The permittee shall maintain monthly records of the tons of steel processed during each calendar month, as well as the rolling, 12-month summation of the amount of steel processed.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#P0109216]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland DAQ which identify all exceedances of the rolling, 12-month steel process rate limitation. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#P0109216]

f) Testing Requirements

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

a. Emission Limitation:

Carbon monoxide (CO) emissions from the natural decarburization of the steel (uncontrolled) shall not exceed 16.7 lbs/hr.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the lbs/hr emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10. See f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#P0109216]

b. Emission Limitation:

CO emissions from the natural decarburization of the steel (uncontrolled) shall not exceed 59.22 TPY.

Applicable Compliance Method:

The ton per year limitation was developed by dividing the lb/hr CO emission rate established through the emissions testing requirement in f)(2) by the maximum process rate of the emissions unit (100 tons/hr). This lb/ton emission factor is multiplied by the annual production rate restriction (710,600 tons of steel production) and divided by the factor of 2,000 pounds/ton. Compliance shall be determined by multiplying the emission factor from the most recent stack test which demonstrated compliance by the actual annual amount of steel processed.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#P0109216]

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

Emissions testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit renewal. The emission testing shall be conducted to demonstrate compliance with the CO emission limitations.

The following test methods shall be employed to demonstrate compliance with the CO emission limitation: Methods 1-4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The test(s) shall be conducted while the VOD is operational during the natural decarburization of the steel. The emissions unit shall be operated at or near its maximum capacity unless otherwise specified or approved by the Cleveland Division of Air Quality.

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

Personnel from the Cleveland DAQ 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 Cleveland DAQ 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 Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#P0109216]

g) Miscellaneous Requirements

(1) None.

## 6. P046, Cooling Towers (6)

**Operations, Property and/or Equipment Description:**

6 cooling towers with a total throughput of 25,000 gpm and 1.5 MMgallons/hr for cooling of process water

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| a. | OAC rule 3745-31-05(A)(3)<br>(PTI #13-04176 issued February 12, 2008) | The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-(10) thru (20). |
| b. | OAC rule 3745-31-10 thru 20 | PM/PM10 emissions shall not exceed 1.5 lbs/hr and 6.6 TPY<br>OC emissions shall not exceed 0.15 lb/hr and 0.66 TPY<br>Visible particulate emissions shall not exceed 10% opacity as a 6-minute average. |
| c. | OAC rule 3745-17-07(A) | The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| d. | OAC rule 3745-17-11(B) | The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The total water flow rate of the cooling towers shall not exceed 25,000 gpm.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI#13-04176]

(2) The monthly average concentration of total dissolved solids (TDS) in the cooling tower water shall not exceed 5,682 mg/gallon.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI#13-04176]

(3) The monthly average concentration of organics in the cooling tower water shall not exceed 568 mg/gallon.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI#13-04176]

(4) The cooling towers will be equipped with drift eliminators to reduce drift water droplets by inertial separation.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI#13-04176]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly operate and maintain equipment to monitor the cooling towers water flow rate. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals. The permittee shall monitor and record the cooling towers water flow rate, in gallons per minute, at a minimum frequency of once/day.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

(2) The permittee shall sample the cooling towers water monthly to adequately demonstrate compliance with the monthly average concentration of total dissolved solids (TDS) limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

(3) The permittee shall sample the cooling towers water monthly to adequately demonstrate compliance with the monthly average concentration of organics limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland DAQ that identify all periods of time during which:

a. cooling towers water flow rate exceeds 25,000 gpm;

b. The monthly average concentration of total dissolved solids (TDS) in the cooling towers water exceeds 5,682 mg/gallon; and

c. The monthly average concentration of organics in the cooling towers water exceeds 568 mg/gallon.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

f) Testing Requirements

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

a. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 10% opacity as a 6-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)(1).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

b. Emission Limitation:

PM/PM10 emissions shall not exceed 1.5 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation may be determined by use of the following formulas:

circulation rate (gal/min) x drift factor (%) = Drift Rate

(25,000 gal/min) x (0.008/100) = 2 gal/min or 454.2 liters/hr

solids concentration of makeup water (mg/liter) x number of concentration cycles for the cooling towers

= TDS

500 mg/liter x 3 = 1500 mg/liter

Drift rate x TDS x 1 lb/453,592 mg= emission rate in lb/hr

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

c. Emission Limitation:

6.6 TPY of PM/PM10 emissions

Applicable Compliance Method(s):

The ton per year limitation was developed by multiplying the hourly particulate emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

d. Emission Limitation:

OC emissions shall not exceed 0.15 lb/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation may be determined by use of the following formulas:

circulation rate (gal/min) x drift factor (%) = Drift Rate

(25,000 gal/min) x (0.008/100) = 2 gal/min or 454.2 liters/hr

organic concentration of makeup water (mg/liter) x number of concentration cycles for the cooling towers

= TOC

50 mg/liter x 3 = 150 mg/liter

Drift rate x TOC x 1 lb/453,592 mg= emission rate in lb/hr

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

e. Emission Limitation:

0.66 TPY of OC emissions

Applicable Compliance Method(s):

The ton per year limitation was developed by multiplying the hourly OC emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI#13-04176]

g) Miscellaneous Requirements

(1) None.

**7. P047, Tundish Preheater #4**

**Operations, Property and/or Equipment Description:**

12.0 mmBtu/hr natural gas fired tundish preheater heater 4

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| a. | OAC rule 3745-31-05(A)(3)<br>(PTI #P0107610 issued March 10, 2011) | The requirements of this rule also include compliance with the requirements of OAC rule 3745-31- (10) thru (20) and OAC rule 3745-18-06(A). |
| b. | OAC rule 3745-31-10 thru 20 | PM/PM10 emissions shall not exceed 0.09 lb/hr and 0.39 ton/year.<br>Carbon monoxide (CO) emissions shall not exceed 0.99 lb/hr and 4.33 tons/year.<br>Nitrogen oxide (NOx) emissions shall not exceed 1.18 lbs/hr and 5.17 tons/year.<br>Volatile Organic Compounds (VOC) emissions shall not exceed 0.06 lb/hr and 0.26 ton/year.<br>Organic compound (OC) emissions shall not exceed 0.13 lb/hr and 0.57 ton/year.<br>Sulfur dioxide (SO2) emissions shall not exceed 0.007 lb/hr and 0.03 ton/year.<br>See b)(2)a and b)(2)b. |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| c. | OAC rule 3745-17-07(A)(1) | The visible particulate emission limitation specified by this rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| d. | OAC rule 3745-17-10(B)(1) | The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| e. | OAC rule 3745-18-06(A) | Exempt pursuant to OAC rule 3745-18-06(A) when burning natural gas. |

(2) Additional Terms and Conditions

a. The emissions from sources P032-P038, P041, P047 and P900-P902 that vent to the Melt Shop Baghouse shall not exceed the following from the baghouse outlet:

PM/PM10 emissions shall not exceed 20.28 lbs/hr or 0.0024 grains/dscf and 92.56 TPY

Sulfur dioxide (SO2) emissions shall not exceed 242.06 lbs/hr and 99.31 TPY

Nitrogen oxide (NOx) emissions shall not exceed 47.28 lbs/hr and 165.42 TPY

Carbon monoxide (CO) emissions shall not exceed 397.23 lbs/hr and 1,330.00 TPY

Volatile organic compounds (VOC) emissions shall not exceed 22.70 lbs/hr and 74.20 TPY

Lead (Pb) emissions shall not exceed 0.000065 gr/dscf or 0.57 lb/hr and 1.80 TPY

Mercury (Hg) emissions shall not exceed 0.052 lb/hr and 0.17 TPY

3 percent opacity from the melt shop baghouse stack exit

b. Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that the use of natural gas as fuel, acceptance of a NOx emission limitation of 100 lbs/MMcf and acceptance of a CO emission limitation

of 84 lbs/MMcf constitutes BACT for this emission unit. The emissions limits based on the BACT requirements are listed under OAC rule 3745-31-(10) thru (20) above.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI# P0107610]

(2) The emissions from P047 shall be vented to the melt shop baghouse.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI# P0107610]

d) Monitoring and/or Recordkeeping 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107610]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107610]

f) Testing Requirements

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

a. Emission Limitation:

3 percent opacity, as a 6-minute average, from the melt shop baghouse stack exit

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107610]

b. Emission Limitation:

PM/PM10 emissions shall not exceed 0.09 lb/hr.

Applicable Compliance Method:

When firing natural gas, compliance shall be determined by multiplying an emission factor of 7.6 lbs of particulates/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.0118 mm cu. ft/hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, the permittee may demonstrate compliance with this emission limitation in accordance with the testing requirement for the combined allowable emissions as described in the terms and conditions for sources P900-P902.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107610]

c. Emission Limitation:

0.39 TPY of PM/PM10 emissions

Applicable Compliance Method(s):

The ton per year limitation was developed by multiplying the hourly particulate emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107610]

d. Emission Limitation:

CO emissions shall not exceed 0.99 lb/hr.

Applicable Compliance Method:

When firing natural gas, compliance shall be determined by multiplying an emission factor of 84 lbs of CO/mm cu. ft. by the emissions unit's maximum

hourly natural gas firing rate (0.0118 mm cu. ft./hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, the permittee may demonstrate compliance with this emission limitation in accordance with the testing requirement for the combined allowable emissions as described in the terms and conditions for source P900-P902.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107610]

e. Emission Limitation:

4.33 TPY of CO emissions

Applicable Compliance Method:

The ton per year limitation was developed by multiplying the hourly CO emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107610]

f. Emission Limitation:

NOx emissions shall not exceed 1.18 lbs/hr.

Applicable Compliance Methods:

When firing natural gas, compliance shall be determined by multiplying an emission factor of 100 lbs of NOx/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.0118 mm cu. ft./hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, the permittee may demonstrate compliance with this emission limitation in accordance with the testing requirement for the combined allowable emissions as described in the terms and conditions for source P900-P902.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107610]

g. Emission Limitation:

5.17 TPY of NOx emissions

Applicable Compliance Method(s):

The ton per year limitation was developed by multiplying the hourly particulate emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107610]

h. Emission Limitation:

VOC emissions shall not exceed 0.06 lb/hr.

Applicable Compliance Method:

When firing natural gas, compliance shall be determined by multiplying an emission factor of 5.5 lbs of VOC/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.0118 mm cu. ft./hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, the permittee may demonstrate compliance with this emission limitation in accordance with the testing requirement for the combined allowable emissions as described in the terms and conditions for source P900-P902.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107610]

i. Emission Limitation:

0.26 TPY of VOC emissions

Applicable Compliance Method:

The ton per year limitation was developed by multiplying the hourly VOC emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107610]

j. Emission Limitation:

SO2 emissions shall not exceed 0.007 lb/hr.

Applicable Compliance Methods:

When firing natural gas, compliance shall be determined by multiplying an emission factor of 0.6 lb of SO2/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.0118 mm cu. ft./hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, the permittee may demonstrate compliance with this emission limitation in accordance with the testing requirement for the combined allowable emissions as described in the terms and conditions for source P900-P902.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107610]

k. Emission Limitation:

0.03 TPY of SO2 emissions

Applicable Compliance Method(s):

The ton per year limitation was developed by multiplying the hourly SO2 emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107610]

l. Emission Limitation:

OC emissions shall not exceed 0.13 lb/hr.

Applicable Compliance Method:

When firing natural gas, compliance shall be determined by multiplying an emission factor of 11 lbs of OC/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.0118 mm cu. ft./hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107610]

m. Emission Limitation:

0.57 TPY of OC emissions

Applicable Compliance Method:

The ton per year limitation was developed by multiplying the hourly particulate emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107610]

g) Miscellaneous Requirements

(1) None.

**8. P900, Electric Arc Furnace**

**Operations, Property and/or Equipment Description:**

110 TPH capacity Electric Arc Furnace (EAF) with direct evacuation control (DEC) for capture and a baghouse for control of emissions

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| a. | OAC rule 3745-31-05(A)(3) (PTI #P0111766 issued December 28, 2012) | Sulfur dioxide (SO2) emissions shall not exceed 220.0 lbs/hr during the production of resulfurized grade steel.<br>Sulfur dioxide (SO2) emissions shall not exceed 22.0 lbs/hr during the production of all other grades of steel.<br>Mercury (Hg) emissions shall not exceed 0.052 lb/hr and 0.17 TPY.<br>Total for meltshop baghouse<br>See b)(2)a. and b)(2)c.<br>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-(10) thru (20) and NSPS 40 CFR Part 60 Subpart AAa. |
| b. | OAC rule 3745-31-10 thru 20 | Emissions from the EAF shall not exceed the following:<br>PM/PM10 emissions shall not exceed 12.43 lbs/hr and 40.15 TPY<br>Nitrogen oxide (NOx) emissions shall not exceed 36.29 lbs/hr and 117.25 TPY<br>Carbon monoxide (CO) emissions shall not exceed 356.4 lbs/hr and 1,151.2 TPY |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| | | Volatile organic compounds (VOC) emissions shall not exceed 22.0 lbs/hr and 71.06 TPY<br>Lead (Pb) emissions shall not exceed 0.000065 gr/dscf, 0.55 lb/hr and 1.80TPY<br>Total for meltshop baghouse<br>See b)(2)a. and b)(2)b.<br>See b)(2)d. |
| c. | OAC rule 3745-31-05(C) | 28.0 tons of SO2 per rolling 12-month period, during the production of resulfurized grade steel.<br>71.06 tons of SO2 per rolling 12-month period, during the production of all other grades of steel. |
| d. | OAC rule 3745-17-07(A)(1) | The visible particulate emission limitation specified by this rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| e. | OAC rule 3745-17-11(B) | The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| f. | OAC rule 3745-18-06(E)(1) | The sulfur dioxide emission limitation specified by this rule is less stringent than the sulfur dioxide emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| g. | NSPS 40 CFR Part 60 Subpart AAa | The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).<br>The visible particulate emission limitation specified by this rule is equivalent to the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| h. | CFR Part 63 Subpart YYYYY | The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).<br>The visible fugitive emission limitation for the meltshop building specified by this rule is equivalent to the visible emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| i. | CFR Part 63 Subpart A | Table 1 to Subpart YYYYY of 40 CFR Part 63- Applicability of General Provisions to Subpart YYYYY |
| j. | CFR Part 64<br>Compliance Assurance Monitoring (CAM) | See c)(1), c)(6), d)(3), d)(12), d)(14), e)(3) and e)(5). |

(2) Additional Terms and Conditions

a. The emissions from sources P032-P038, P041, P047 and P900-P902 that vent to the Melt Shop Baghouse shall not exceed the following from the baghouse outlet:

PM/PM10 emissions shall not exceed 20.28 lbs/hr or 0.0024 grains/dscf and 92.56 TPY

Sulfur dioxide (SO2) emissions shall not exceed 242.06 lbs/hr and 99.31 TPY

Nitrogen oxide (NOx) emissions shall not exceed 47.28 lbs/hr and 165.42 TPY

Carbon monoxide (CO) emissions shall not exceed 397.23 lbs/hr and 1,330.00 TPY

Volatile organic compounds (VOC) emissions shall not exceed 22.70 lbs/hr and 74.20 TPY

Lead (Pb) emissions shall not exceed 0.000065 gr/dscf or 0.57 lb/hr and 1.80 TPY

Mercury (Hg) emissions shall not exceed 0.052 lb/hr and 0.17 TPY

3 percent opacity from the meltshop baghouse stack exit

b. Visible emissions of fugitive dust from the meltshop building shall not exceed 6 percent opacity, as a 6-minute average.

c. Mercury emissions shall be controlled by using the baghouse and by restricting the amount of mercury containing scrap used in the process. For purposes of this permit to install, "mercury containing scrap" is defined as #2 bundles or shredded (frag) scrap consisting in part of either automobile or white goods scrap obtained from a source where the readily accessible mercury containing devices have not been removed prior to crushing or shredding.

d. The permittee is required to perform a Best Available Control Technology (BACT) review for NOx, CO, PM/$PM_{10}$, lead, and VOC. The emissions limits based on the BACT requirements are listed under OAC rule 3745-31-(10) through (20) above. The following determinations have been made for this emissions unit:

PM/PM10- Use of a baghouse with an emission limit of 0.0024 gr/dscf of exhaust gases

Lead - Use of a baghouse with an emission limit of 0.000065 gr/dscf of exhaust gases

NOx- Use of DEC Direct Evacuation Control (DEC) system, low NOx oxy-fuel burners and monitoring of specific process variables.

VOC - Use of DEC Direct Evacuation Control (DEC) system

CO - Use of DEC Direct Evacuation Control (DEC) system

c) Operational Restrictions

(1) The minimum pressure drop across the meltshop baghouse shall be 4.0 inches of water, based on 15-minute averages. The “set point” for the baghouse shall be 8.0 inches of water. The baghouse shall be operated and maintained within these parameters. This pressure drop shall be monitored and recorded at least every 15 seconds.

Charter Steel may change the set point for the baghouse from 8.0 inches of water if subsequent particulate emission performance tests demonstrate compliance at the requested set point.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3), PTI# P0111766 and 40 CFR Part 64]

(2) The emissions from P900 shall be vented to the melt shop baghouse. In addition, the capture system shall be designed and operated such that all emissions are captured and ducted to the dropout chamber and then to the baghouse. The capture system for the emissions unit shall include a common canopy hood and roof control system. The emissions from the furnace roof vent to the dropout and then to the meltshop baghouse.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(3) The maximum annual production rate for this emissions unit shall not exceed 710,600 tons of steel, based upon a rolling, 12-month summation of the tons of steel produced per month.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(4) The maximum annual production rate for this emissions unit during resulfurization grade steel production shall not exceed 28,000 tons of steel, based upon a rolling, 12-month summation of the tons of steel produced per month.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(5) The permittee shall operate this emissions unit in accordance with the Scrap Management Program (SMP) submitted to the Cleveland Division of Air Quality (Cleveland DAQ) to allow the minimal use of scrap charged in the EAF that contains mercury, lead, oils, plastics, and organic materials. The SMP shall be viewed as an operational restriction for the EAF and shall be updated as needed in conjunction with the Title V permit renewal process. Any future change to the SMP that would increase the amount of these compounds present in the scrap, or result in the emissions of an air contaminant not previously emitted, must be approved by the Cleveland DAQ.

All grades of scrap shall be free of excessive dirt, oil, and grease. Heavily oiled scrap shall not be used. As part of the SMP, the permittee shall install a radionuclide detector which will be used to inspect all incoming scrap material into the facility. Radioactive scrap material shall not be used at this facility. Any scrap material which is determined to be radioactive shall be disposed of in accordance with the Nuclear Regulatory Commission's (NRC) requirements.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(6) The following standards are requirements of the NSPS Subpart AAa (The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.), BACT and BAT. Visible emissions shall not exceed the following limits as a six-minute average:

a. 3 percent opacity from the baghouse exit; and,

b. 6 percent opacity from the meltshop

[Note: This limit is more restrictive than the NSPS and MACT limit which only limits emissions due solely to the operation of an EAF(s) or AOD vessel(s). This limit is for visible emissions of fugitive dust from the meltshop building].

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3), PTI# P0111766 and 40 CFR Part 64]

(7) The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart YYYYY, including the following sections:

| | |
|---|---|
| 63.10685 (a)(1) | Pollution prevention plan for metallic scrap |
| 63.10685 (a)(2) | Restricted metallic scrap |
| 63.10685 (b) | Mercury requirements |

[Authority for term: 40 CFR Part 63 Subpart YYYYY]

d) Monitoring and/or Recordkeeping Requirements

(1) The following are requirements of the NSPS Subpart AAa. Observations of the opacity of the visible emissions from the meltshop baghouse shall be performed by a certified visible emission observer as follows:

a. Visible emission observations shall be conducted at least once per day of operation. The observations shall occur when the furnace is operating in the charging, melting, tapping and refining period. These observations shall be taken in accordance with Method 9 of 40 CFR Part 60, Appendix A and, for at least three 6-minute periods, the opacity shall be recorded for point(s) where the greatest opacity visible emissions are observed, and that portion of the plume where the condensed water phase is not present in accordance with the procedures listed in Method 9 of 40 CFR Part 60, Appendix A. Where it is possible to determine that a number of visible emission sites relate to only one incident of the visible emission, only one set of three 6-minute observations will be required. In this case, Method 9 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. Records shall be maintained of any 6-minute average that is in excess of the limitation for visible particulate emissions.

The appropriate records shall be maintained in the permittee's files to identify the persons responsible for conducting the opacity readings and to verify that the Method 9 certifications are up to date for the responsible individuals.

[Authority for term: 40 CFR Part 60 Subpart AAa, OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(2) In accordance with NSPS Subpart AAa, observations of the opacity of the visible emissions from the shop shall be performed by a certified visible emission observer as follows:

a. Visible emission observations shall be conducted at least once per day when the furnace is operating in the meltdown and refining period. 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. Where it is possible to determine that a number of visible emission sites relate to

only one incident of the 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. The owner or operator shall maintain records of all shop observations made in accordance with the above requirements. The appropriate records shall be maintained in the permittee's files to identify the persons responsible for conducting the opacity readings and to verify that the Method 9 certifications are up to date for the responsible individuals.

[Authority for term: 40 CFR Part 60 Subpart AAa, OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(3) The permittee shall monitor the operation of the furnace control systems and maintain records in accordance with the following requirements:

a. The permittee shall calibrate, and maintain a monitoring device that allows the pressure in the free space inside the EAF to be monitored. The monitoring device may be installed in any appropriate location in the EAF ducts prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of plus or minus 5 mm of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions. The pressure determined during the most recent compliance demonstration shall be maintained at all times when the EAF is operating in a meltdown and refining period. Operation at higher pressures may be considered by the Ohio EPA, Division of Air Pollution Control (DAPC) to be unacceptable operation and maintenance of the control system. The permittee may petition the Ohio EPA for reestablishment of the 15-minute integrated average of the pressure whenever the permittee can demonstrate to the Agency's satisfaction that EAF operating conditions upon which the pressures were previously established are no longer applicable;

b. The permittee shall check and record on a once-per-shift basis the furnace static pressure and either (1) check and record the control system fan motor amperes and damper positions on a once-per-shift basis; or (2) calibrate and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood. The monitoring device may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring devices shall have an accuracy of plus or minus 10 percent over their normal operating range and shall be calibrated according to the manufacturer's instructions. The Ohio EPA, DAPC may require the permittee 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 demonstration of compliance shall be maintained at the appropriate levels for each applicable period. Operation at other than baseline values will be considered by the Ohio EPA, DAPC to be unacceptable operation and maintenance of the control

system. The permittee may petition the Ohio EPA for reestablishment of these parameters whenever the permittee can demonstrate to the Agency's satisfaction that the operating conditions upon which the parameters were previously established are no longer applicable;

c. The permittee shall perform and maintain records of the monthly operational status inspections of the equipment that is important to the performance of the total capture systems (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 ductwork, and fan erosion.) Any deficiencies shall be recorded and proper maintenance performed. The permittee may petition the Ohio EPA, DAPC to approve any alternative to monthly operational status inspections that will provide a continuous record of the operation of each emission capture system; and,

d. Upon approval by the U.S. EPA, an alternative method may be established to replace the monitoring and recordkeeping requirements found in d)(3)a., d)(3)b., and d)(3)c. above.

[Authority for term: 40 CFR Part 60 Subpart AAa, OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3), PTI# P0111766 and 40 CFR Part 64]

(4) The permittee shall maintain daily production records for this emissions unit. These records, at a minimum, shall contain the following information:

a. the number of hours this emissions unit was in operation; and

b. the tons of steel produced.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(5) The permittee shall maintain monthly records of the tons of steel produced during each calendar month and the rolling, 12-month summation of the steel produced.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(6) The permittee shall maintain production records for the emissions unit during the resulfurization process. These records, at a minimum, shall contain the following information:

a. the number of hours this emissions unit was in operation; and

b. the tons of steel produced during the resulfurization process.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(7) The permittee shall maintain monthly records of the tons of steel produced during the resulfurization process each calendar month and the rolling, 12-month summation of the steel produced during the resulfurization process.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(8) The permittee shall properly operate and maintain a continuous parameter monitoring system (CPMS) to measure the pressure drop across the meltshop baghouse while the emissions unit is in operation. The permittee shall record the pressure drop across the melt shop baghouse at least every 15-seconds and monitor the 15-minute average pressure drop using the CPMS.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(9) If the minimum average pressure drop is less than 4.0 inches of water, an automated notification (email or text message) shall be sent to the meltshop operator and environmental engineer. If the set point for the baghouse deviates from 8.0 inches of water, or a set point established by subsequent performance testing, an automated notification (email or text message) shall be sent to the meltshop operator and environmental engineer.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(10) The CPMS shall be calibrated, operated, and maintained as follows:

a. Locate the pressure sensor in or as close as possible to a position that provides a representative measurement of the pressure drop and that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion;

b. Check the pressure tab for pluggage daily;

c. Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range;

d. Using a manometer, check, and record gauge calibration quarterly and transducer calibration monthly; and

e. Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or immediately install a new pressure sensor.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(11) The permittee shall operate each CPMS as follows:

a. Each CPMS must complete a minimum of one cycle of operation for each successive 1-minute period;

b. Charter Steel must have a minimum of three of the required four data points to constitute a valid minute of detail;

c. Each CPMS must have valid data for 100 percent of every averaging period; and

d. Each CPMS must determine and record the 15-minute average of all recorded readings.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(12) The permittee shall obtain an analysis of the Melt Shop Baghouse dust on a monthly basis. At a minimum, the samples shall be analyzed for chromium, magnesium, manganese, lead, zinc, and mercury content. The results shall be reported in weight percent. This analysis shall be conducted in accordance with U.S. EPA test methods and procedures.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3), PTI# P0111766 and 40 CFR Part 64]

(13) The permittee shall identify the types of scrap received as mercury containing scrap or other scrap (including scrap from which mercury containing devices have been removed). The permittee shall record the weight of mercury containing scrap, in pounds, the weight of other scrap, in pounds, and the charge identification number, for each furnace charge. The permittee shall determine and record the percent by weight of mercury containing scrap charged to the EAF, on a daily basis.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(14) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicator for particulate emissions are the EAF inspections and maintenance program, opacity measurements at the meltshop and baghouse exit, the pressure drop range for the baghouse collector system, furnace static pressure, and control system fan motor amperes and damper position.

The CAM performance indicator range as measured through the EAF inspections and maintenance program including furnace static pressure and fan motor amperes is specified in d)(3). When the monitoring parameters are outside of any ranges specified in d)(3), corrective action (including, but not limited to, an evaluation of the emissions unit and the control device) will be required.

The CAM performance indicator range as measured by visible particulate emissions readings for opacity is specified in c)(6). When the opacity readings are outside the ranges specified in c)(6), corrective action (including, but not limited to, an evaluation of the emissions unit and the control device) will be required.

The CAM performance indicator range as measured by the baghouse dust collector pressure drops is specified in c)(1). When the pressure drops are outside of the indicator range specified in c)(1), corrective action (including, but not limited to, an evaluation of the emissions unit and the control device) will be required.

Upon detecting an excursion of any of the particulate emission indicator ranges listed above, the owner or operator shall restore operation of the emissions unit (including the control devices) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion. Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as thorough response by the computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range.

If a determination is made by the Administrator or Ohio EPA that the permittee has not used acceptable procedures in response to an excursion or exceedance based on the results of a determination made under 40 CFR Part 64.7(d)(2), the permittee may be required to develop a Quality Improvement Plan (QIP) consistent with the requirements of 40 CFR Part 64.8.

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

(15) The permittee shall comply with the applicable record keeping requirements under 40 CFR Part 63, Subpart YYYYY, including the following sections:

| | |
|---|---|
| 63. 10685 (c) | Pollution prevention plan for metallic scrap<br>Restricted metallic scrap<br>Mercury requirements |

[Authority for term: 40 CFR Part 63 Subpart YYYYY]

e) Reporting Requirements

(1) The permittee shall submit quarterly written deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) of all exceedances of the opacity restrictions for the meltshop baghouse from b)(2)a.. For the purposes of these reports, exceedances are defined as all 6-minute periods during which the average opacity exceeds these limits.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(2) The permittee shall submit quarterly written deviation (excursion) reports to the Cleveland DAQ that identify all exceedances of the static pressure values in the EAF established in d)(3)b. and either operation of control system fan motor amperes at

values exceeding plus 15 percent of the values established under d)(3)b. above or operation at flow rates lower than those established under d)(3)b. above.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(3) The permittee shall submit quarterly written deviation (excursion) reports to the Cleveland DAQ that identify all periods of time during which the pressure drop for the Melt Shop Baghouse did not comply with the allowable range specified in c)(1).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3), PTI# P0111766 and 40 CFR Part 64]

(4) The permittee shall submit deviation (excursion) reports to the Cleveland DAQ which identify all exceedances of the rolling, 12-month steel production rate limitation. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(5) If the results of monitoring or record keeping data indicate that the particulate emission limitations may have been exceeded, the permittee shall submit the results of that data, and document any corrective action taken to restore operation of the emissions unit, or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

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

(6) The permittee shall comply with the applicable reporting requirements under 40 CFR Part 63, Subpart YYYYY, including the following sections:

| | |
|---|---|
| 63. 10685 (c) | Pollution prevention plan for metallic scrap<br>Restricted metallic scrap<br>Mercury requirements |

[Authority for term: 40 CFR Part 63 Subpart YYYYY]

f) Testing Requirements

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

a. Emission Limitation:

220.0 lbs/hr of SO2 emissions (resulfurization) P900

Applicable Compliance Method:

Compliance with this emission limitation may be determined through the use of the emission factor for resulfurized steel processing (2.0 lb/ton) which is multiplied by the maximum hourly steel process rate of the emissions unit (110 tons per hour).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

b. Emission Limitation:

28.0 tons of SO2 emissions per rolling 12-month period (resulfurization) P900

Applicable Compliance Method:

Compliance with this annual emission limitation may be determined through the use of the emission factor for resulfurized steel processing (2.0 lb/ton) which is multiplied by the actual annual steel process rate of the emissions unit (in tons/year) and dividing by the factor of (2,000 lbs/ton).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

c. Emission Limitation:

22.0 lbs/hr of SO2 emissions (other steel grades) P900

Applicable Compliance Method:

Compliance with this emission limitation may be determined through the use of the emission factor for standard grade steel processing (0.2 lb/ton) which is multiplied by the maximum hourly steel process rate of the emissions unit (110 tons per hour).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

d. Emission Limitation:

71.06 tons of SO2 emissions per rolling 12-month period (other steel grades) P900

Applicable Compliance Method:

Compliance with this annual emission limitation may be determined through the use of the emission factor for standard steel processing (0.2 lb/ton) which is multiplied by the actual annual steel process rate of the emissions unit (in tons/year) and dividing by the factor of (2,000 lbs/ton).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

e. Emission Limitation:

PM/PM10 emissions shall not exceed 12.43 lbs/hr P900

Applicable Compliance Method:

Compliance with this emission limitation may be determined through the use of the controlled FIRE 6.22 emission factor for the EAF steel processing (0.113 lb/ton) which is multiplied by the maximum hourly steel process rate of the emissions unit (110 tons per hour).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

f. Emission Limitation:

40.15 TPY of PM/PM10 emissions P900

Applicable Compliance Method:

Compliance with this annual emission limitation may be determined through the use of the controlled FIRE 6.22 emission factor for the EAF steel processing (0.113 lb/ton) which is multiplied by the actual annual steel process rate of the emissions unit (in tons/year) and dividing by the factor of (2,000 lbs/ton).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

g. Emission Limitation:

NOx emissions shall not exceed 36.29 lbs/hr P900

Applicable Compliance Method:

Compliance with this emission limitation may be determined through the use of the emission factor for the EAF steel processing (0.33 lb/ton) which is multiplied by the maximum hourly steel process rate of the emissions unit (110 tons per hour).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

h. Emission Limitation:

117.25 TPY of NOx emissions P900

Applicable Compliance Method:

Compliance with this annual emission limitation may be determined through the use of the emission factor for the EAF steel processing (0.33 lb/ton) which is multiplied by the actual annual steel process rate of the emissions unit (in tons/year) and dividing by the factor of (2,000 lbs/ton).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

i. Emission Limitation:

CO emissions shall not exceed 356.4 lbs/hr P900

Applicable Compliance Method:

Compliance with this emission limitation may be determined through the use of the emission factor for the EAF steel processing (18.0 lbs/ton) which is multiplied by the maximum hourly steel process rate of the emissions unit (110 tons per hour) and (1-0.82) which is the control efficiency for the DEC control system.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

j. Emission Limitation:

1,151.2 TPY of CO emissions P900

Applicable Compliance Method:

Compliance with this annual emission limitation may be determined through the use of the emission factor for the EAF steel processing (18.0 lbs/ton) which is multiplied by the actual annual steel process rate of the emissions unit (in tons/year), (1-0.82) which is the control efficiency for the DEC control system and dividing by the factor of (2,000 lbs/ton).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

k. Emission Limitation:

VOC emissions shall not exceed 22.0 lbs/hr P900

Applicable Compliance Method:

Compliance with this emission limitation may be determined through the use of the emission factor for EAF steel processing (0.2 lb/ton) which is multiplied by the maximum hourly steel process rate of the emissions unit (110 tons per hour).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

l. Emission Limitation:

71.06 TPY of VOC emissions P900

Applicable Compliance Method:

Compliance with this annual emission limitation may be determined through the use of the emission factor for EAF steel processing (0.2 lb/ton) which is multiplied by the actual annual steel process rate of the emissions unit (in tons/year) and dividing by the factor of (2,000 lbs/ton).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

m. Emission Limitation:

Lead (Pb) emissions shall not exceed 0.55 lb/hr P900

Applicable Compliance Method:

Compliance with this emission limitation may be determined through the use of the emission factor for the EAF steel processing (0.5 lb/ton) which is multiplied by the maximum hourly steel process rate of the emissions unit (110 tons per hour) and (1-0.99) which is the control efficiency for the baghouse system.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

n. Emission Limitation:

1.80 TPY of Lead (Pb) emissions P900

Applicable Compliance Method:

Compliance with this annual emission limitation may be determined through the use of the emission factor for the EAF steel processing (0.5 lb/ton) which is multiplied by the actual annual steel process rate of the emissions unit (in tons/year), (1-0.99) which is the control efficiency for the baghouse control system and dividing by the factor of (2,000 lbs/ton).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

o. Emission Limitation:

Visible particulate emissions shall not exceed 3% opacity, as a 6-minute average, from the Meltshop baghouse stack.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

p. Emission Limitation:

PM/PM10 emissions shall not exceed 20.28 lbs/hr or 0.0024 grains/dscf. Meltshop baghouse

Applicable Compliance Method:

Compliance shall be based upon the results of the emission testing specified in f)(2). The emission testing shall be performed in accordance with the requirements of 40 CFR Part 60 Subpart AAa and 40 CFR Part 63 Subpart YYYYY.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

q. Emission Limitation:

92.56 TPY of PM/PM10 emissions Meltshop baghouse

Applicable Compliance Method:

Compliance with this annual Meltshop baghouse emission limitation may be determined by a summation of actual annual PM/PM10 emissions (tons/year) from emissions units P032-P038, P041, P047, and P900-P902 using the compliance methods outlined in this permit or test results from the most recent stack test during which compliance was demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

r. Emission Limitation:

SO2 emissions shall not exceed 242.06 lbs/hr. Meltshop baghouse

Applicable Compliance Method:

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

s. Emission Limitation:

99.31 TPY of SO2 emissions Meltshop baghouse

Applicable Compliance Method:

The ton per year limitation was developed by dividing the lb/hr SO2 emission rate established through the emissions testing requirement in f)(1)p. by the maximum process rate of the emissions unit (110 tons/hr). This lb/ton emission factor is multiplied by the annual production rate restriction (710,600 tons of steel production) and divided by the factor of 2,000 pounds/ton. Compliance shall be determined by multiplying the emissions factor from the most recent stack test which demonstrated compliance by the actual annual amount of steel processed.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

t. Emission Limitation:

NOx emissions shall not exceed 47.28 lbs/hr. Meltshop baghouse

Applicable Compliance Method:

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

u. Emission Limitation:

165.42 TPY of NOx emissions Meltshop baghouse

Applicable Compliance Method:

Compliance with this annual Meltshop baghouse emission limitation may be determined by a summation of actual annual NOx emissions (tons/year) from emissions units P032-P038, P041, P047, and P900-P902 using the compliance methods outlined in this permit or test results from the most recent stack test during which compliance was demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

v. Emission Limitation:

CO emissions shall not exceed 397.23 lbs/hr. Meltshop baghouse

Applicable Compliance Method:

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

w. Emission Limitation:

1,330.00 TPY of CO emissions Meltshop baghouse

Applicable Compliance Method:

Compliance with this annual Meltshop baghouse emission limitation may be determined by a summation of actual annual CO emissions (tons/year) from emissions units P032-P038, P041, P047, and P900-P902 using the compliance methods outlined in this permit or test results from the most recent stack test during which compliance was demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

x. Emission Limitation:

VOC emissions shall not exceed 22.70 lbs/hr. Meltshop baghouse

Applicable Compliance Method:

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

y. Emission Limitation:

74.20 TPY of VOC emissions Meltshop baghouse

Applicable Compliance Method:

Compliance with this annual Meltshop baghouse emission limitation may be determined by a summation of actual annual VOC emissions (tons/year) from emissions units P032-P038, P041, P047, and P900-P902 using the compliance methods outlined in this permit or test results from the most recent stack test during which compliance was demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

z. Emission Limitation:

Lead (Pb) emissions shall not exceed 0.000065 gr/dscf or 0.57 lb/hr.

Meltshop baghouse

Applicable Compliance Method:

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

aa. Emission Limitation:

1.80 TPY of Lead (Pb) emissions Meltshop baghouse

Applicable Compliance Method:

Compliance with this annual Meltshop baghouse emission limitation may be determined by a summation of actual annual Pb emissions (tons/year) from emissions units P032-P038, P041, P047, and P900-P902 using the compliance methods outlined in this permit or test results from the most recent stack test during which compliance was demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

bb. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 6% opacity, as a 6-minute average, from the Meltshop building.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

cc. Emission Limitation:

Mercury (Hg) emissions shall not exceed 0.052 lb/hr. Meltshop baghouse

Applicable Compliance Method:

Emission factor for mercury was developed based upon known testing and emissions allowables of other sources. An emission factor of 0.000476 lb Hg/ton of steel was used for determining the allowable hourly emission rate as follows: 110 tons/hr x 0.000476 lb Hg/ton = 0.052 lb Hg/hr.

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

dd. Emission Limitation:

0.17 TPY of Mercury (Hg) emissions Meltshop baghouse

Applicable Compliance Method:

Compliance with this annual Meltshop baghouse emission limitation may be determined by a summation of actual annual Hg emissions (tons/year) from emissions units P032-P038, P041, P047, and P900-P902 using the compliance methods outlined in this permit or test results from the most recent stack test during which compliance was demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(2) Emissions testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit renewal. The emission testing shall be conducted to demonstrate compliance with the SO2, NOx, CO, VOC, lead (Pb), mercury (Hg), opacity (stack and fugitive), and particulate emission limitations.

The test(s) shall be conducted while emissions units P032-P038, P041, P047 and P900-P902 are operating simultaneously at or near their maximum capacity, unless otherwise specified or approved by the Cleveland DAQ. The tests shall be conducted in accordance with the requirements of 40 CFR Part 60.275a.

During the particulate emission testing, the permittee shall obtain the following additional information:

a. the pressure in the free space inside the furnace shall be determined during the melting and refining period(s) using the monitoring devices required under Condition d)(3)a. of this permit unless alternative monitoring is approved by U.S. EPA; and

b. the control system fan motor amperes and all damper positions or the volumetric flow rate through each separately ducted hood shall be determined during all periods in which a hood is operated for the purpose of capturing emissions from the EAFs.

During performance tests, the permittee shall not add gaseous diluents to the effluent gas stream after the fabric in any pressurized fabric filter collector unless the amount of dilution is separately determined and considered in the determination of emissions.

When testing for particulates, the sampling time and sample volume for each run shall be at least 4 hours and 4.5 dscm (160 dscf) and, when a single EAF is sampled, the sampling time shall include an integral number of heats.

The following test methods shall be employed to demonstrate compliance with the emission limitations:

Methods 1 through 5 of 40 CFR Part 60, Appendix A for particulates;

Methods 1 through 4 and 6 of 40 CFR Part 60, Appendix A for SO2;

Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A for NOx;

Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A for CO;

Methods 1 through 4 and 25 or 25A of 40 CFR Part 60, Appendix A for VOC;

Methods 1 through 4 and 12 or 29 of 40 CFR Part 60, Appendix A for lead (Pb);

Methods 1 through 4 and 29 of 40 CFR Part 60, Appendix A for mercury (Hg); and

Method 9 for opacity.

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

The performance test protocol (i.e., Ohio EPA Intent to Test) shall specify the requested baghouse pressure set point. The performance test report of results shall include data that proves the baghouse was tested at the requested set point.

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

Personnel from the Cleveland DAQ 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 Cleveland DAQ 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 Cleveland DAQ.

[Authority for term: 40 CFR Part 60 Subpart AAa, 40 CFR Part 63 Subpart YYYYY, OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

g) Miscellaneous Requirements

(1) None.

## 9. P901, Ladle Metallurgy Furnace

**Operations, Property and/or Equipment Description:**

LMF - Ladle Metallurgy Furnace, 110 TPH capacity, for alloy mixing and re-sufurization of molten steel

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| a. | OAC rule 3745-31-05(A)(3) (PTI #P0111766 issued December 28, 2012) | The requirements of this rule also include compliance with the requirements of OAC rule 3745-31- (10) thru (20). |
| b. | OAC rule 3745-31-10 thru 20 | Emissions from the LMF shall not exceed the following:<br>PM/PM10 emissions shall not exceed 2.20 lbs/hr and 9.64 TPY<br>Nitrogen oxide (NOx) emissions shall not exceed 1.65 lbs/hr and 7.23 TPY<br>Carbon monoxide (CO) emissions shall not exceed 33.0 lbs/hr and 144.54 TPY<br>Volatile organic compounds (VOC) emissions shall not exceed 0.22 lbs/hr and 0.96 TPY<br>Lead (Pb) emissions shall not exceed 0.000065 gr/dscf, 0.02 lb/hr and 0.09 TPY<br>See b)(2)a.<br>See b)(2)b. |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| c. | OAC rule 3745-17-07 (A)(1)<br>OAC rule 3745-17-07 (B)(3)<br>OAC rule 3745-17-11<br>OAC rule 3745-18-06(E)(1) | The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3). |
| d. | 40 CFR Part 64<br>Compliance Assurance Monitoring (CAM) | See c)(1), d)(1), d)(6), d)(7), e)(1) and e)(2). |

(2) Additional Terms and Conditions

a. The emissions from sources P032-P038, P041, P047 and P900-P902 that vent to the Melt Shop Baghouse shall not exceed the following from the baghouse outlet:

PM/PM10 emissions shall not exceed 20.28 lbs/hr or 0.0024 grains/dscf and 92.56 TPY

Sulfur dioxide (SO2) emissions shall not exceed 242.06 lbs/hr and 99.31 TPY

Nitrogen oxide (NOx) emissions shall not exceed 47.28 lbs/hr and 165.42 TPY

Carbon monoxide (CO) emissions shall not exceed 397.23 lbs/hr and 1,330.00 TPY

Volatile organic compounds (VOC) emissions shall not exceed 22.70 lbs/hr and 74.20 TPY

Lead (Pb) emissions shall not exceed 0.000065 gr/dscf or 0.57 lb/hr and 1.80 TPY

Mercury (Hg) emissions shall not exceed 0.052 lb/hr and 0.17 TPY

3 percent opacity from the meltshop baghouse stack exit

b. The permittee is required to perform a Best Available Control Technology (BACT) review for NOx, CO, PM/$PM_{10}$, and VOC. The emissions limits based on the BACT requirements are listed under OAC rule 3745-31-(10) through (20) above. The following determinations have been made for this emissions unit:

i. PM/PM10- Use of a baghouse with an emission limit of 0.0024 gr/dscf of exhaust gases

c) Operational Restrictions

(1) The minimum pressure drop across the meltshop baghouse shall be 4.0 inches of water, based on 15-minute averages. The "set point" for the baghouse shall be 8.0 inches of water. The baghouse shall be operated and maintained within these parameters. This pressure drop shall be monitored and recorded at least every 15 seconds.

Charter Steel may change the set point for the baghouse from 8.0 inches of water if subsequent particulate emission performance tests demonstrate compliance at the requested set point. The emissions from P901 shall be vented to the melt shop baghouse.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3), PTI# P0111766 and 40 CFR Part 64]

(2) The emissions from P901 shall be vented to the melt shop baghouse.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI# P0111766]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall monitor the baghouse control system and maintain records in accordance with the following requirements.

The permittee shall perform monthly operational status inspections of the equipment that is 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 ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3), PTI#P0111766 and 40 CFR Part 64]

(2) The permittee shall properly operate and maintain a continuous parameter monitoring system (CPMS) to measure the pressure drop across the meltshop baghouse while the emissions unit is in operation. The permittee shall record the pressure drop across the melt shop baghouse at least every 15-seconds and monitor the 15-minute average pressure drop using the CPMS.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(3) If the minimum average pressure drop is less than 4.0 inches of water, an automated notification (email or text message) shall be sent to the meltshop operator and environmental engineer. If the set point for the baghouse deviates from 8.0 inches of water, or a set point established by subsequent performance testing, an automated notification (email or text message) shall be sent to the meltshop operator and environmental engineer.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(4) The CPMS shall be calibrated, operated, and maintained as follows:

a. Locate the pressure sensor in or as close as possible to a position that provides a representative measurement of the pressure drop and that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion;

b. Check the pressure tab for pluggage daily;

c. Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range;

d. Using a manometer, check, and record gauge calibration quarterly and transducer calibration monthly; and

e. Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or immediately install a new pressure sensor.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(5) The permittee shall operate each CPMS as follows:

a. Each CPMS must complete a minimum of one cycle of operation for each successive 1-minute period;

b. Charter Steel must have a minimum of three of the required four data points to constitute a valid minute of detail;

c. Each CPMS must have valid data for 100 percent of every averaging period; and

d. Each CPMS must determine and record the 15-minute average of all recorded readings.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(6) The permittee shall obtain an analysis of the Melt Shop Baghouse dust on a monthly basis. At a minimum, the samples shall be analyzed for chromium, magnesium, manganese, lead, zinc, and mercury content. The results shall be reported in weight percent. This analysis shall be conducted in accordance with U.S. EPA test methods and procedures.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3), PTI# P0111766 and 40 CFR Part 64]

(7) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicator for particulate emissions are the control system inspection and maintenance program, opacity measurements at the meltshop and baghouse exit, the pressure drop range for the baghouse collector system and control system fan motor amperes and damper position.

The CAM monthly maintenance tasks include the inspection and maintenance program elements specified in d)(1) and d)(6). Any deficiencies are to be recorded and proper maintenance performed to remedy the deficiencies.

The CAM performance indicator range as measured by visible particulate emissions readings for opacity is specified in section C.8.c)(6). When the opacity readings are outside the ranges specified in section C.8.c)(6), corrective action (including, but not limited to, an evaluation of the emissions unit and the control device) will be required.

The CAM performance indicator range as measured by the baghouse dust collector pressure drops is specified in c)(1). When the pressure drops are outside of the indicator range specified in c)(1), corrective action (including, but not limited to, an evaluation of the emissions unit and the control device) will be required.

The CAM performance indicator range as measured by the control system fan motor amperes and damper position is specified in section C.8.d)(3)b. and c. When the monitoring parameters are outside of any of the normal operating parameters, corrective action (including, but not limited to, an evaluation of the emissions unit and the control device) will be required.

Upon detecting an excursion of any of the particulate emission indicator ranges listed above, the owner or operator shall restore operation of the emissions unit (including the control devices) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion. Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as thorough response by the computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range.

If a determination is made by the Administrator or Ohio EPA that the permittee has not used acceptable procedures in response to an excursion or exceedance based on the results of a determination made under 40 CFR Part 64.7(d)(2), the permittee may be required to develop a Quality Improvement Plan (QIP) consistent with the requirements of 40 CFR Part 64.8.

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

e) Reporting Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3), PTI# P0111766 and 40 CFR Part 64]

(2) If the results of monitoring or record keeping data indicate that the particulate emission limitations may have been exceeded, the permittee shall submit the results of that data, and document any corrective action taken to restore operation of the emissions unit, or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

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

f) Testing Requirements

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

a. Emission Limitation:

PM/PM10 emissions shall not exceed 2.20 lbs/hr. P901

Applicable Compliance Method:

Compliance with this emission limitation may be determined through the use of the emission factor for LMF steel processing (2.0 lb/ton) which is multiplied by the maximum hourly steel process rate of the emissions unit (110 tons per hour) and (1-0.99) which is the control efficiency for the baghouse.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

b. Emission Limitation:

9.64 TPY of PM/PM10 emissions P901

Applicable Compliance Method:

Compliance with this annual emission limitation may be determined through the use of the emission factor LMF steel processing (2.0 lb/ton) which is multiplied by the actual annual steel process rate of the emissions unit (in tons/year), (1-0.99) which is the control efficiency for the baghouse and dividing by the factor of (2,000 lbs/ton).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

c. Emission Limitation:

NOx emissions shall not exceed 1.65 lbs/hr. P901

Applicable Compliance Method:

Compliance with this emission limitation may be determined through the use of the emission factor for LMF steel processing (0.015 lb/ton) which is multiplied by the maximum hourly steel process rate of the emissions unit (110 tons per hour).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

d. Emission Limitation:

7.23 TPY of NOx emissions P901

Applicable Compliance Method:

Compliance with this annual emission limitation may be determined through the use of the emission factor for LMF steel processing (0.015 lb/ton) which is multiplied by the actual annual steel process rate of the emissions unit (in tons/year) and dividing by the factor of (2,000 lbs/ton).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

e. Emission Limitation:

CO emissions shall not exceed 33.0 lbs/hr. P901

Applicable Compliance Method:

Compliance with this emission limitation may be determined through the use of the emission factor for LMF steel processing (0.3 lb/ton) which is multiplied by the maximum hourly steel process rate of the emissions unit (110 tons per hour).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

f. Emission Limitation:

144.54 TPY of CO emissions P901

Applicable Compliance Method:

Compliance with this annual emission limitation may be determined through the use of the emission factor for LMF steel processing (0.3 lb/ton) which is multiplied by the actual annual steel process rate of the emissions unit (in tons/year) and dividing by the factor of (2,000 lbs/ton).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

g. Emission Limitation:

VOC emissions shall not exceed 0.22 lb/hr. P901

Applicable Compliance Method:

Compliance with this emission limitation may be determined through the use of the emission factor for LMF steel processing (0.002 lb/ton) which is multiplied by the maximum hourly steel process rate of the emissions unit (110 tons per hour).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

h. Emission Limitation:

0.96 TPY of VOC emissions P901

Applicable Compliance Method:

Compliance with this annual emission limitation may be determined through the use of the emission factor for LMF steel processing (0.002 lb/ton) which is multiplied by the actual annual steel process rate of the emissions unit (in tons/year) and dividing by the factor of (2,000 lbs/ton).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

i. Emission Limitation:

Lead (Pb) emissions shall not exceed 0.02 lb/hr. P901

Applicable Compliance Method:

Compliance with this emission limitation may be determined through the use of the emission factor for LMF steel processing (0.02 lb/ton) which is multiplied by the maximum hourly steel process rate of the emissions unit (110 tons per hour) and (1-0.99) which is the control efficiency for the baghouse.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

j. Emission Limitation:

0.09 TPY of Lead (Pb) emissions P901

Applicable Compliance Method:

Compliance with this annual emission limitation may be determined through the use of the emission factor LMF steel processing (0.02 lb/ton) which is multiplied by the actual annual steel process rate of the emissions unit (in tons/year), (1-0.99) which is the control efficiency for the baghouse and dividing by the factor of (2,000 lbs/ton).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

k. Emission Limitation:

Visible particulate emissions shall not exceed 3% opacity, as a 6-minute average, from the Meltshop baghouse stack.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

l. Emission Limitation:

PM/PM10 emissions shall not exceed 20.28 lbs/hr or 0.0024 gr/dscf.

Meltshop baghouse

Applicable Compliance Method:

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

m. Emission Limitation:

92.56 TPY of PM/PM10 emissions Meltshop baghouse

Applicable Compliance Method:

Compliance with this annual Meltshop baghouse emission limitation may be determined by a summation of actual annual PM/PM10 emissions (tons/year) from emissions units P032-P038, P041, P047, and P900-P902 using the compliance methods outlined in this permit or test results from the most recent stack test during which compliance was demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

n. Emission Limitation:

SO2 emissions shall not exceed 242.06 lbs/hr. Meltshop baghouse

Applicable Compliance Method:

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

o. Emission Limitation:

99.31 TPY of SO2 emissions Meltshop baghouse

Applicable Compliance Method:

The ton per year limitation was developed by dividing the lb/hr SO2 emission rate established through the emissions testing requirement in f)(1)r. by the maximum process rate of the emissions unit (110 tons/hr). This lb/ton emission factor is multiplied by the annual production rate restriction (710,600 tons of steel production) and divided by the factor of 2,000 pounds/ton. Compliance shall be determined by multiplying the emissions factor from the most recent stack test which demonstrated compliance by the actual annual amount of steel processed.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

p. Emission Limitation:

NOx emissions shall not exceed 47.28 lbs/hr. Meltshop baghouse

Applicable Compliance Method:

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

q. Emission Limitation:

165.42 TPY of NOx emissions Meltshop baghouse

Applicable Compliance Method:

Compliance with this annual Meltshop baghouse emission limitation may be determined by a summation of actual annual NOx emissions (tons/year) from emissions units P032-P038, P041, P047, and P900-P902 using the compliance methods outlined in this permit or test results from the most recent stack test during which compliance was demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

r. Emission Limitation:

CO emissions shall not exceed 397.23 lbs/hr. Meltshop baghouse

Applicable Compliance Method:

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

s. Emission Limitation:

1,330.00 TPY of CO emissions Meltshop baghouse

Applicable Compliance Method:

Compliance with this annual Meltshop baghouse emission limitation may be determined by a summation of actual annual CO emissions (tons/year) from emissions units P032-P038, P041, P047, and P900-P902 using the compliance methods outlined in this permit or test results from the most recent stack test during which compliance was demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

t. Emission Limitation:

VOC emissions shall not exceed 22.70 lbs/hr. Meltshop baghouse

Applicable Compliance Method:

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

u. Emission Limitation:

74.20 TPY of VOC emissions Meltshop baghouse

Applicable Compliance Method:

Compliance with this annual Meltshop baghouse emission limitation may be determined by a summation of actual annual VOC emissions (tons/year) from emissions units P032-P038, P041, P047, and P900-P902 using the compliance methods outlined in this permit or test results from the most recent stack test during which compliance was demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

v. Emission Limitation:

Lead (Pb) emissions shall not exceed 0.000065 gr/dscf or 0.57 lb/hr.

Meltshop baghouse

Applicable Compliance Method:

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

w. Emission Limitation:

1.80 TPY of Lead (Pb) emissions Meltshop baghouse

Applicable Compliance Method:

Compliance with this annual Meltshop baghouse emission limitation may be determined by a summation of actual annual Pb emissions (tons/year) from emissions units P032-P038, P041, P047, and P900-P902 using the compliance methods outlined in this permit or test results from the most recent stack test during which compliance was demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

x. Emission Limitation:

Mercury (Hg) emissions shall not exceed 0.052 lb/hr. Meltshop baghouse

Applicable Compliance Method:

Emission factor for mercury was developed based upon known testing and emissions allowables of other sources. An emission factor of 0.000476 lb Hg/ton of steel was used for determining the allowable hourly emission rate as follows: 110 tons/hr x 0.000476 lb Hg/ton = 0.052 lb Hg/hr.

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

y. Emission Limitation:

0.17 TPY of Mercury (Hg) emissions Meltshop baghouse

Applicable Compliance Method:

Compliance with this annual Meltshop baghouse emission limitation may be determined by a summation of actual annual Hg emissions (tons/year) from emissions units P032-P038, P041, P047, and P900-P902 using the compliance methods outlined in this permit or test results from the most recent stack test during which compliance was demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(2) Emissions testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit renewal. The emission testing shall be conducted to demonstrate compliance with the SO2, NOx, CO, VOC, lead (Pb), mercury (Hg), opacity (stack and fugitive), and particulate emission limitations.

The test(s) shall be conducted while emissions units P032-P038, P041, P047 and P900-P902 are operating simultaneously at or near their maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

The following test methods shall be employed to demonstrate compliance with the emission limitations:

Methods 1 through 5 of 40 CFR Part 60, Appendix A for particulates;

Methods 1 through 4 and 6 of 40 CFR Part 60, Appendix A for SO2;

Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A for NOx;

Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A for CO;

Methods 1 through 4 and 25 or 25A of 40 CFR Part 60, Appendix A for VOC;

Methods 1 through 4 and 12 or 29 of 40 CFR Part 60, Appendix A for lead (Pb);

Methods 1 through 4 and 29 of 40 CFR Part 60, Appendix A for mercury (Hg); and

Method 9 for opacity.

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

The performance test protocol (i.e., Ohio EPA Intent to Test) shall specify the requested baghouse pressure set point. The performance test report of results shall include data that proves the baghouse was tested at the requested set point.

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

Personnel from the Cleveland DAQ 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 Cleveland DAQ 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 Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

g) Miscellaneous Requirements

(1) None.

**10. P902, Continuous Caster**

**Operations, Property and/or Equipment Description:**

Continuous caster of steel

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| a. | OAC rule 3745-31-05(A)(3)(PTI #P0111766 issued December 28, 2012) | The requirements of this rule also include compliance with the requirements of OAC rule 3745-31- (10) thru (20) and OAC rule 3745-17-08. |
| b. | OAC rule 3745-31-10 thru 20 | Emissions from the continuous caster shall not exceed the following:<br>PM/PM10 emissions shall not exceed 1.10 lbs/hr and 4.82 TPY<br>See b)(2)a.<br>See b)(2)b. |
| c. | OAC rule 3745-17-07(A)(1) | The visible particulate emission limitation specified by this rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| d. | OAC rule 3745-17-07(B)(3) | The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| e. | OAC rule 3745-17-08(B) | reasonable available control measures for control of emissions of fugitive dust |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| f. | OAC rule 3745-17-11 | The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| g. | OAC rule 3745-18-06(E)(1) | The sulfur dioxide emission limitation specified by this rule is less stringent than the sulfur dioxide emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| h. | 40 CFR Part 64<br>Compliance Assurance Monitoring (CAM) | See c)(1), d)(1), d)(6), d)(7), e)(1) and e)(2). |

(2) Additional Terms and Conditions

a. The emissions from sources P032-P038, P041, P047 and P900-P902 that vent to the Melt Shop Baghouse shall not exceed the following from the baghouse outlet:

PM/PM10 emissions shall not exceed 20.28 lbs/hr or 0.0024 grains/dscf and 92.56 TPY

Sulfur dioxide (SO2) emissions shall not exceed 242.06 lbs/hr and 99.31 TPY

Nitrogen oxide (NOx) emissions shall not exceed 47.28 lbs/hr and 165.42 TPY

Carbon monoxide (CO) emissions shall not exceed 397.23 lbs/hr and 1,330.00 TPY

Volatile organic compounds (VOC) emissions shall not exceed 22.70 lbs/hr and 74.20 TPY

Lead (Pb) emissions shall not exceed 0.000065 gr/dscf or 0.57 lb/hr and 1.80 TPY

Mercury (Hg) emissions shall not exceed 0.052 lb/hr and 0.17 TPY

3 percent opacity from the meltshop baghouse stack exit

b. The permittee is required to perform a Best Available Control Technology (BACT) review for NOx, CO, PM/$PM_{10}$, and VOC. The emissions limits based on the BACT requirements are listed under OAC rule 3745-31-(10) through (20) above. The following determinations have been made for this emissions unit:

PM/PM10- Use of a baghouse with an emission limit of 0.0024 gr/dscf of exhaust gases

c) Operational Restrictions

(1) The minimum pressure drop across the meltshop baghouse shall be 4.0 inches of water, based on 15-minute averages. The "set point" for the baghouse shall be 8.0 inches of water. The baghouse shall be operated and maintained within these parameters. This pressure drop shall be monitored and recorded at least every 15 seconds.

Charter Steel may change the set point for the baghouse from 8.0 inches of water if subsequent particulate emission performance tests demonstrate compliance at the requested set point.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3), PTI# P0111766 and 40 CFR Part 64]

(2) The emissions from P902 shall be vented to the melt shop baghouse.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI# P0111766]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall monitor the baghouse control system and maintain records in accordance with the following requirements.

The permittee shall perform monthly operational status inspections of the equipment that is 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 ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3), PTI# P0111766 and 40 CFR Part 64]

(2) The permittee shall properly operate and maintain a continuous parameter monitoring system (CPMS) to measure the pressure drop across the meltshop baghouse while the emissions unit is in operation. The permittee shall record the pressure drop across the melt shop baghouse at least every 15-seconds and monitor the 15-minute average pressure drop using the CPMS.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(3) If the minimum average pressure drop is less than 4.0 inches of water, an automated notification (email or text message) shall be sent to the meltshop operator and environmental engineer. If the set point for the baghouse deviates from 8.0 inches of water, or a set point established by subsequent performance testing, an automated notification (email or text message) shall be sent to the meltshop operator and environmental engineer.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(4) The CPMS shall be calibrated, operated, and maintained as follows:

a. Locate the pressure sensor in or as close as possible to a position that provides a representative measurement of the pressure drop and that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion;

b. Check the pressure tab for pluggage daily;

c. Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range;

d. Using a manometer, check, and record gauge calibration quarterly and transducer calibration monthly; and

e. Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or immediately install a new pressure sensor.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(5) The permittee shall operate each CPMS as follows:

a. Each CPMS must complete a minimum of one cycle of operation for each successive 1-minute period;

b. Charter Steel must have a minimum of three of the required four data points to constitute a valid minute of detail;

c. Each CPMS must have valid data for 100 percent of every averaging period; and

d. Each CPMS must determine and record the 15-minute average of all recorded readings.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(6) The permittee shall obtain an analysis of the Melt Shop Baghouse dust on a monthly basis. At a minimum, the samples shall be analyzed for chromium, magnesium, manganese, lead, zinc, and mercury content. The results shall be reported in weight percent. This analysis shall be conducted in accordance with U.S. EPA test methods and procedures.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3), PTI# P0111766 and 40 CFR Part 64]

(7) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicator for particulate emissions are the control system inspection and maintenance program, opacity measurements at the meltshop and baghouse exit, the pressure drop range for the baghouse collector system and control system fan motor amperes and damper position.

The CAM monthly maintenance tasks include the inspection and maintenance program elements specified in d)(1) and d)(6). Any deficiencies are to be recorded and proper maintenance performed to remedy the deficiencies.

The CAM performance indicator range as measured by visible particulate emissions readings for opacity is specified in section C.8.c)(6). When the opacity readings are outside the ranges specified in section C.8.c)(6), corrective action (including, but not limited to, an evaluation of the emissions unit and the control device) will be required.

The CAM performance indicator range as measured by the baghouse dust collector pressure drops is specified in c)(1). When the pressure drops are outside of the indicator range specified in c)(1), corrective action (including, but not limited to, an evaluation of the emissions unit and the control device) will be required.

The CAM performance indicator range as measured by the control system fan motor amperes and damper position is specified in section C.8.d)(3)b. and c. When the monitoring parameters are outside of any of the normal operating parameters, corrective action (including, but not limited to, an evaluation of the emissions unit and the control device) will be required.

Upon detecting an excursion of any of the particulate emission indicator ranges listed above, the owner or operator shall restore operation of the emissions unit (including the control devices) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion. Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as thorough response by the computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range.

If a determination is made by the Administrator or Ohio EPA that the permittee has not used acceptable procedures in response to an excursion or exceedance based on the results of a determination made under 40 CFR Part 64.7(d)(2), the permittee may be required to develop a Quality Improvement Plan (QIP) consistent with the requirements of 40 CFR Part 64.8.

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

e) Reporting Requirements

(1) The permittee shall submit quarterly written deviation (excursion) reports to the Cleveland DAQ that identify all periods of time during which the pressure drop across the melt shop baghouse did not comply with the allowable range specified in c)(1).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3), PTI# P0111766 and 40 CFR Part 64]

(2) If the results of monitoring or record keeping data indicate that the particulate emission limitations may have been exceeded, the permittee shall submit the results of that data, and document any corrective action taken to restore operation of the emissions unit, or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

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

f) Testing Requirements

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

a. Emission Limitation:

PM/PM10 emissions shall not exceed 1.10 lbs/hr. P902

Applicable Compliance Method:

Compliance with this emission limitation may be determined through the use of the emission factor for the continuous casting steel processing (1.0 lb/ton) which is multiplied by the maximum hourly steel process rate of the emissions unit (110 tons per hour) and (1-0.99) which is the control efficiency for the baghouse.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

b. Emission Limitation:

4.82 TPY of PM/PM10 emissions P902

Applicable Compliance Method:

Compliance with this annual emission limitation may be determined through the use of the emission factor for continuous casting steel processing (1.0 lb/ton) which is multiplied by the actual annual steel process rate of the emissions unit (in tons/year), (1-0.99) which is the control efficiency for the baghouse and dividing by the factor of (2,000 lbs/ton).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

c. Emission Limitation:

PM/PM10 emissions shall not exceed 20.28 lbs/hr or 0.0024 grains/dscf. Meltshop baghouse

Applicable Compliance Method:

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

d. Emission Limitation:

92.56 TPY of PM/PM10 emissions Meltshop baghouse

Applicable Compliance Method:

Compliance with this annual Meltshop baghouse emission limitation may be determined by a summation of actual annual PM/PM10 emissions (tons/year) from emissions units P032-P038, P041, P047, and P900-P902 using the compliance methods outlined in this permit or test results from the most recent stack test during which compliance was demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

e. Emission Limitation:

SO2 emissions shall not exceed 242.06 lbs/hr. Meltshop baghouse

Applicable Compliance Method:

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

f. Emission Limitation:

99.31 TPY of SO2 emissions Meltshop baghouse

Applicable Compliance Method:

The ton per year limitation was developed by dividing the lb/hr SO2 emission rate established through the emissions testing requirement in f)(1)e. by the maximum process rate of the emissions unit (110 tons/hr). This lb/ton emission factor is multiplied by the annual production rate restriction (710,600 tons of steel production) and divided by the factor of 2,000 pounds/ton. Compliance shall be determined by multiplying the emissions factor from the most recent stack test which demonstrated compliance by the actual annual amount of steel processed.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

g. Emission Limitation:

NOx emissions shall not exceed 47.28 lbs/hr. Meltshop baghouse

Applicable Compliance Method:

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

h. Emission Limitation:

165.42 TPY of NOx emissions Meltshop baghouse

Applicable Compliance Method:

Compliance with this annual Meltshop baghouse emission limitation may be determined by a summation of actual annual NOx emissions (tons/year) from emissions units P032-P038, P041, P047, and P900-P902 using the compliance methods outlined in this permit or test results from the most recent stack test during which compliance was demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

i. Emission Limitation:

CO emissions shall not exceed 397.23 lbs/hr. Meltshop baghouse

Applicable Compliance Method:

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

j. Emission Limitation:

1,330.00 TPY of CO emissions Meltshop baghouse

Applicable Compliance Method:

Compliance with this annual Meltshop baghouse emission limitation may be determined by a summation of actual annual CO emissions (tons/year) from emissions units P032-P038, P041, P047, and P900-P902 using the compliance methods outlined in this permit or test results from the most recent stack test during which compliance was demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

k. Emission Limitation:

VOC emissions shall not exceed 22.70 lbs/hr. Meltshop baghouse

Applicable Compliance Method:

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

l. Emission Limitation:

74.20 TPY of VOC emissions Meltshop baghouse

Applicable Compliance Method:

Compliance with this annual Meltshop baghouse emission limitation may be determined by a summation of actual annual VOC emissions (tons/year) from emissions units P032-P038, P041, P047, and P900-P902 using the compliance methods outlined in this permit or test results from the most recent stack test during which compliance was demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

m. Emission Limitation:

Lead (Pb) emissions shall not exceed 0.000065 gr/dscf or 0.57 lb/hr.

Meltshop baghouse

Applicable Compliance Method:

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

n. Emission Limitation:

1.80 TPY of Lead (Pb) emissions Meltshop baghouse

Applicable Compliance Method:

Compliance with this annual Meltshop baghouse emission limitation may be determined by a summation of actual annual Pb emissions (tons/year) from emissions units P032-P038, P041, P047, and P900-P902 using the compliance methods outlined in this permit or test results from the most recent stack test during which compliance was demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

o. Emission Limitation:

Mercury (Hg) emissions shall not exceed 0.052 lb/hr. Meltshop baghouse

Applicable Compliance Method:

Emission factor for mercury was developed based upon known testing and emissions allowables of other sources. An emission factor of 0.000476 lb Hg/ton of steel was used for determining the allowable hourly emission rate as follows: 110 tons/hr x 0.000476 lb Hg/ton = 0.052 lb Hg/hr.

Compliance shall be based upon the results of the emission testing specified in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

p. Emission Limitation:

0.17 TPY of Mercury (Hg) emissions Meltshop baghouse

Applicable Compliance Method:

Compliance with this annual Meltshop baghouse emission limitation may be determined by a summation of actual annual Hg emissions (tons/year) from emissions units P032-P038, P041, P047, and P900-P902 using the compliance methods outlined in this permit or test results from the most recent stack test during which compliance was demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

q. Emission Limitation:

Visible particulate emissions shall not exceed 3% opacity, as a 6-minute average, from the Meltshop baghouse stack.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

(2) Emissions testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit renewal. The emission testing shall be conducted to demonstrate compliance with the SO2, NOx, CO, VOC, lead (Pb), mercury (Hg), opacity (stack and fugitive), and particulate emission limitations.

The test(s) shall be conducted while emissions units P032-P038, P041, P047 and P900-P902 are operating simultaneously at or near their maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

The following test methods shall be employed to demonstrate compliance with the emission limitations:

Methods 1 through 5 of 40 CFR Part 60, Appendix A for particulates;

Methods 1 through 4 and 6 of 40 CFR Part 60, Appendix A for SO2;

Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A for NOx;

Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A for CO;

Methods 1 through 4 and 25 or 25A of 40 CFR Part 60, Appendix A for VOC;

Methods 1 through 4 and 12 or 29 of 40 CFR Part 60, Appendix A for Lead (Pb);

Methods 1 through 4 and 29 of 40 CFR Part 60, Appendix A for Mercury (Hg);

Method 9 for opacity.

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

The performance test protocol (i.e., Ohio EPA Intent to Test) shall specify the requested baghouse pressure set point. The performance test report of results shall include data that proves the baghouse was tested at the requested set point.

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

Personnel from the Cleveland DAQ 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 Cleveland DAQ 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 Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0111766]

g) Miscellaneous Requirements

(1) None.

## 11. Emissions Unit Group -12.0 mmBtu nat gas preheaters: P032,P033,P034

| EU ID | Operations, Property and/or Equipment Description |
|---|---|
| P032 | number 1 natural gas fired tundish preheater rated at 12.0 mmBtu/hr |
| P033 | number 2 natural gas fired tundish preheater rated at 12.0 mmBtu/hr |
| P034 | number 3 natural gas fired tundish preheater rated at 12.0 mmBtu/hr |

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| a. | OAC rule 3745-31-05(A)(3)<br>(PTI #P0107543 issued March 10, 2011) | Sulfur dioxide (SO2) emissions shall not exceed 0.007 lb/hr and 0.03 ton/year.<br>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31- (10) thru (20) and OAC rule 3745-18-06(A). |
| b. | OAC rule 3745-31-10 thru 20 | PM/PM10 emissions shall not exceed 0.09 lb/hr and 0.39 ton/year.<br>Carbon monoxide (CO) emissions shall not exceed 0.99 lb/hr and 4.33 tons/year.<br>Nitrogen oxide (NOx) emissions shall not exceed 1.18 lbs/hr and 5.17 tons/year.<br>Volatile Organic Compounds (VOC) emissions shall not exceed 0.06 lb/hr and 0.26 ton/year.<br>Organic compound (OC) emissions shall not exceed 0.13 lb/hr and 0.57 ton/year.<br>See b)(2)a.<br>See b)(2)b. |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| c. | OAC rule 3745-17-07(A)(1) | The visible particulate emission limitation specified by this rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| d. | OAC rule 3745-17-10(B)(1) | The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| e. | OAC rule 3745-18-06(A) | Exempt pursuant to OAC rule 3745-18-06(A) when burning natural gas |

(2) Additional Terms and Conditions

a. The emissions from sources P032-P038, P041, P047 and P900-P902 that vent to the Melt Shop Baghouse shall not exceed the following from the baghouse outlet:

PM/PM10 emissions shall not exceed 20.28 lbs/hr or 0.0024 grains/dscf and 92.56 TPY

Sulfur dioxide (SO2) emissions shall not exceed 242.06 lbs/hr and 99.31 TPY

Nitrogen oxide (NOx) emissions shall not exceed 47.28 lbs/hr and 165.42 TPY

Carbon monoxide (CO) emissions shall not exceed 397.23 lbs/hr and 1,330.00 TPY

Volatile organic compounds (VOC) emissions shall not exceed 22.70 lbs/hr and 74.20 TPY

Lead (Pb) emissions shall not exceed 0.000065 gr/dscf or 0.57 lb/hr and 1.80 TPY

Mercury (Hg) emissions shall not exceed 0.052 lb/hr and 0.17 TPY

3 percent opacity from the melt shop baghouse stack exit

b. Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that the use of natural gas as fuel, acceptance of a NOx emission limitation of 100 lbs/MMcf and acceptance of a CO emission limitation of 84 lbs/MMcf constitutes BACT for this emission unit. The emissions limits based on the BACT requirements are listed under OAC rule 3745-31-(10) thru (20) above.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI# P0107543]

(2) The emissions from P032, P033 and P034 shall be vented to the melt shop baghouse.

[Authority for term: OAC rule 3745-77-07(A)(1) and 3745-31-05(A)(3) and PTI# P0107543]

d) Monitoring and/or Recordkeeping 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107543]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107543]

f) Testing Requirements

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

a. Emission Limitation:

3 percent opacity, as a 6-minute average, from the meltshop baghouse stack exit

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107543]

b. Emission Limitation:

PM/PM10 emissions shall not exceed 0.09 lb/hr.

Applicable Compliance Method:

When firing natural gas, compliance shall be determined by multiplying an emission factor of 7.6 lbs of particulates/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.0118 mm cu. ft/hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, the permittee may demonstrate compliance with this emission limitation in accordance with the testing requirement for the combined allowable emissions as described in the terms and conditions for sources P900-P902.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107543]

c. Emission Limitation:

0.39 TPY of PM/PM10 emissions

Applicable Compliance Method(s):

The ton per year limitation was developed by multiplying the hourly particulate emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107543]

d. Emission Limitation:

CO emissions shall not exceed 0.99 lb/hr.

Applicable Compliance Method:

When firing natural gas, compliance shall be determined by multiplying an emission factor of 84 lbs of CO/mm cu. ft. by the emissions unit's maximum

hourly natural gas firing rate (0.0118 mm cu. ft./hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, the permittee may demonstrate compliance with this emission limitation in accordance with the testing requirement for the combined allowable emissions as described in the terms and conditions for source P900-P902.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107543]

e. Emission Limitation:

4.33 TPY of CO emissions

Applicable Compliance Method:

The ton per year limitation was developed by multiplying the hourly CO emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107543]

f. Emission Limitation:

NOx emissions shall not exceed 1.18 lbs/hr.

Applicable Compliance Methods:

When firing natural gas, compliance shall be determined by multiplying an emission factor of 100 lbs of NOx/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.0118 mm cu. ft./hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, the permittee may demonstrate compliance with this emission limitation in accordance with the testing requirement for the combined allowable emissions as described in the terms and conditions for source P900-P902.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107543]

g. Emission Limitation:

5.17 TPY of NOx emissions

Applicable Compliance Method(s):

The ton per year limitation was developed by multiplying the hourly particulate emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107543]

h. Emission Limitation:

VOC emissions shall not exceed 0.06 lb/hr.

Applicable Compliance Method:

When firing natural gas, compliance shall be determined by multiplying an emission factor of 5.5 lbs of VOC/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.0118 mm cu. ft./hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, the permittee may demonstrate compliance with this emission limitation in accordance with the testing requirement for the combined allowable emissions as described in the terms and conditions for source P900-P902.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107543]

i. Emission Limitation:

0.26 TPY of VOC emissions

Applicable Compliance Method:

The ton per year limitation was developed by multiplying the hourly VOC emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107543]

j. Emission Limitation:

SO2 emissions shall not exceed 0.007 lb/hr.

Applicable Compliance Methods:

When firing natural gas, compliance shall be determined by multiplying an emission factor of 0.6 lb of SO2/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.0118 mm cu. ft./hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

If required, the permittee may demonstrate compliance with this emission limitation in accordance with the testing requirement for the combined allowable emissions as described in the terms and conditions for source P900-P902.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107543]

k. Emission Limitation:

0.03 TPY of SO2 emissions

Applicable Compliance Method(s):

The ton per year limitation was developed by multiplying the hourly SO2 emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107543]

l. Emission Limitation:

OC emissions shall not exceed 0.13 lb/hr.

Applicable Compliance Method:

When firing natural gas, compliance shall be determined by multiplying an emission factor of 11 lbs of OC/mm cu. ft. by the emissions unit's maximum hourly natural gas firing rate (0.0118 mm cu. ft./hr). The emission factor is specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107543]

m. Emission Limitation:

0.57 TPY of OC emissions

Applicable Compliance Method:

The ton per year limitation was developed by multiplying the hourly particulate emission rate by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the lb/hr limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI# P0107543]

g) Miscellaneous Requirements

(1) None.