

# FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO

ArcelorMittal Vinton LLC

AUTHORIZING THE OPERATION OF

ArcelorMittal Vinton  
Steel Works

LOCATED AT

El Paso County, Texas

Latitude 35° 57' 39" Longitude 106° 35' 2"

Regulated Entity Number: RN100213941

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site and emission units listed in this permit. Operations of the site and emission units listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site and emission units authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site and emission units.

Permit No:   O1456   Issuance Date:   July 25, 2013  

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For the Commission

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## **General Terms and Conditions**

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

## **Special Terms and Conditions: Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting**

1. Permit holder shall comply with the following requirements:
  - A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.
  - B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.

- C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.
  - D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.
  - E. Emission units subject to 40 CFR Part 63, Subpart YYYYY as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, § 113.1340 which incorporates the 40 CFR Part 63 Subpart by reference.
2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):
- A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements
  - B. Title 30 TAC § 101.3 (relating to Circumvention)
  - C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ
  - D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ
  - E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)
  - F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)
  - G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)
  - H. Title 30 TAC § 101.221 (relating to Operational Requirements)
  - I. Title 30 TAC § 101.222 (relating to Demonstrations)
  - J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)
3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:

- A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1, shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:
- (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)
  - (ii) Title 30 TAC § 111.111(a)(1)(E)
  - (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)
  - (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the “Applicable Requirements Summary” attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:
    - (1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.
    - (2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.

- (3) Records of all observations shall be maintained.
- (4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
- (5) Compliance Certification:
  - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).
  - (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required

under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

- (c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.

B. For visible emissions from a building, enclosed facility, or other structure; the permit holder shall comply with the following requirements:

- (i) Title 30 TAC § 111.111(a)(7)(A) (relating to Requirements for Specified Sources)
- (ii) Title 30 TAC § 111.111(a)(7)(B)(i) or (ii)
- (iii) For a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source subject to 30 TAC § 111.111(a)(7)(A), complying with 30 TAC § 111.111(a)(7)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:
  - (1) An observation of visible emissions from a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source which is required to comply with 30 TAC § 111.111(a)(7)(A) shall be conducted at least once during each calendar quarter unless the air emission source or enclosed facility is not operating for the entire quarter.
  - (2) Records of all observations shall be maintained.
  - (3) Visible emissions observations of air emission sources or enclosed facilities operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of air emission sources or enclosed facilities operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each emissions outlet in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each emissions outlet during the observation. For outdoor locations, the

observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(4) Compliance Certification:

- (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(7) and (a)(7)(A)
- (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(7)(B) to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

C. For visible emissions from all other sources not specified in 30 TAC § 111.111(a)(1), (4), or (7); the permit holder shall comply with the following requirements:

- (i) Title 30 TAC § 111.111(a)(8)(A) (relating to Requirements for Specified Sources)
- (ii) Title 30 TAC § 111.111(a)(8)(B)(i) or (ii)
- (iii) For a source subject to 30 TAC § 111.111(a)(8)(A), complying with 30 TAC § 111.111(a)(8)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO<sub>x</sub>, the permit holder shall also comply with the following

periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:

- (1) An observation of visible emissions from a source which is required to comply with 30 TAC § 111.111(a)(8)(A) shall be conducted at least once during each calendar quarter unless the source is not operating for the entire quarter.
- (2) Records of all observations shall be maintained.
- (3) Visible emissions observations of sources operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of sources operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each source in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each source during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
- (4) Compliance Certification:
  - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(8) and (a)(8)(A)
  - (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(8)(B) to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity

requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

- D. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.
  - E. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:
    - (i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)
    - (ii) Sources with an effective stack height ( $h_e$ ) less than the standard effective stack height ( $H_e$ ), must reduce the allowable emission level by multiplying it by  $[h_e/H_e]^2$  as required in 30 TAC § 111.151(b)
    - (iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)
4. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:
- A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)
  - B. Title 40 CFR § 60.8 (relating to Performance Tests)
  - C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)
  - D. Title 40 CFR § 60.12 (relating to Circumvention)
  - E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
  - F. Title 40 CFR § 60.14 (relating to Modification)
  - G. Title 40 CFR § 60.15 (relating to Reconstruction)
  - H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)

5. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.

### **Additional Monitoring Requirements**

6. Unless otherwise specified, the permit holder shall comply with the compliance assurance monitoring requirements as specified in the attached “CAM Summary” upon issuance of the permit. In addition, the permit holder shall comply with the following:
  - A. For units EAF-1 and EAF-2, the permit holder shall comply with the compliance assurance monitoring requirements, as specified in the attached “CAM Summary,” within 180 days from issuance of the permit. This “CAM Schedule” requires the permit holder to install, test, or perform final verification of the operational status of the monitoring, contained in the attached “CAM Summary,” within 180 days.
  - B. The permit holder shall comply with the terms and conditions contained in 30 TAC § 122.147 (General Terms and Conditions for Compliance Assurance Monitoring).
  - C. The permit holder shall report, consistent with the averaging time identified in the “CAM Summary,” deviations as defined by the deviation limit in the “CAM Summary.” Any monitoring data below a minimum limit or above a maximum limit, that is collected in accordance with the requirements specified in 40 CFR § 64.7(c), shall be reported as a deviation. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).
  - D. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the “CAM Summary,” for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances in order to avoid reporting deviations. All monitoring data shall be collected in accordance with the requirements specified in 40 CFR § 64.7(c).
  - E. The permit holder shall operate the monitoring, identified in the attached “CAM Summary,” in accordance with the provisions of 40 CFR § 64.7.
  - F. The permit holder shall comply with either of the following requirements for any particulate matter capture system associated with the control device subject to CAM. If the results of the following inspections indicate that the capture system is not working properly, the permit holder shall promptly take necessary corrective action:

- (i) Once per year the permit holder shall inspect any fan for proper operation and inspect the capture system used in compliance of CAM for cracks, holes, tears, and other defects; or
    - (ii) Once per year, the permit holder shall inspect for fugitive emissions escaping from the capture system in compliance of CAM by performing a visible emissions observation for a period of at least six minutes in accordance with 40 CFR Part 60, Appendix A, Test Method 22.
  - G. The permit holder shall comply with the requirements of 40 CFR § 70.6(a)(3)(ii)(A) and 30 TAC § 122.144(1)(A)-(F) for documentation of all required inspections.
  - H. Start of operation of the monitoring specified in the “CAM Summary” after the 180 day “CAM Schedule” shall be reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).
7. The permit holder shall comply with the periodic monitoring requirements as specified in the attached “Periodic Monitoring Summary” upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the “Periodic Monitoring Summary,” for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

### **New Source Review Authorization Requirements**

8. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:
- A. Are incorporated by reference into this permit as applicable requirements
  - B. Shall be located with this operating permit
  - C. Are not eligible for a permit shield

9. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.
10. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, material safety data sheets (MSDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144.
  - A. If applicable, monitoring of control device performance or general work practice standards shall be made in accordance with the TCEQ Periodic Monitoring Guidance document.
  - B. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

### **Compliance Requirements**

11. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.
12. Use of Emission Credits to comply with applicable requirements:
  - A. Unless otherwise prohibited, the permit holder may use emission credits to comply with the following applicable requirements listed elsewhere in this permit:
    - (i) Title 30 TAC Chapter 115
    - (ii) Title 30 TAC Chapter 117
    - (iii) Offsets for Title 30 TAC Chapter 116

- B. The permit holder shall comply with the following requirements in order to use the emission credits to comply with the applicable requirements:
    - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.306(c)(2)
    - (ii) The emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 1
    - (iii) The executive director has approved the use of the credit according to 30 TAC § 101.306(c)(2)
    - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.302(g) and 30 TAC Chapter 122
13. Use of Discrete Emission Credits to comply with the applicable requirements:
- A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:
    - (i) Title 30 TAC Chapter 115
    - (ii) Title 30 TAC Chapter 117
    - (iii) If applicable, offsets for Title 30 TAC Chapter 116
    - (iv) Temporarily exceed state NSR permit allowables
  - B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:
    - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)
    - (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4
    - (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)
    - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122

## **Permit Location**

14. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

## **Permit Shield (30 TAC § 122.148)**

15. A permit shield is granted for the emission units, groups, or processes specified in the attached “Permit Shield.” Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment “Permit Shield.” Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

## **Attachments**

**Applicable Requirements Summary**

**Additional Monitoring Requirements**

**Permit Shield**

**New Source Review Authorization References**

## **Applicable Requirements Summary**

**Unit Summary ..... 16**

**Applicable Requirements Summary .....17**

Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

## Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
EAF-1/BH-1A	Emission Points/Stationary Vents/Process Vents	N/A	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
EAF-1/BH-1B	Emission Points/Stationary Vents/Process Vents	N/A	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
MRFSTK	Emission Points/Stationary Vents/Process Vents	N/A	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
EAF-1	Electric Arc Furnace	N/A	63YYYYY	40 CFR Part 63, Subpart YYYYY	No changing attributes.
EAF-2	Electric Arc Furnace	N/A	63YYYYY	40 CFR Part 63, Subpart YYYYY	No changing attributes.
EAFBLDFUG	Electric Arc Furnace Building Fugitives	N/A	63YYYYY	40 CFR Part 63, Subpart YYYYY	No changing attributes.
DUSTHDLG2	Steel Plant Unit	N/A	60AAa	40 CFR Part 60, Subpart AAa	No changing attributes.
EAF-2	Steel Plant Unit	N/A	60AAa	40 CFR Part 60, Subpart AAa	No changing attributes.
EAFBLDFUG	Steel Plant Unit	N/A	60AAa	40 CFR Part 60, Subpart AAa	No changing attributes.

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
EAF-1/BH-1A	EP	R1111-1	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
EAF-1/BH-1B	EP	R1111-1	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
MRFSTK	EP	R1111-1	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(A) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 30% averaged over a six minute period.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
EAF-1	EU	63YYYYY	PM	40 CFR Part 63, Subpart YYYYY	§ 63.10690(b)(6) § 63.10686(b)(1)	This certification of compliance for the monitoring requirements in § 63.10686(e), signed by a responsible official: "This facility has developed and submitted proposed monitoring information in accordance with 40 CFR part 64".	§ 63.10686(d)(1) ** See CAM Summary	None	None
EAF-2	EU	63YYYYY	PM	40 CFR Part 63, Subpart YYYYY	§ 63.10690(b)(6) § 63.10686(b)(1)	This certification of compliance for the monitoring requirements in § 63.10686(e), signed by a responsible official: "This	§ 63.10686(d)(1) ** See CAM Summary	None	None

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						facility has developed and submitted proposed monitoring information in accordance with 40 CFR part 64".			
EAFBLDFUG	EU	63YYYY	PM (OPACITY)	40 CFR Part 63, Subpart YYYY	§ 63.10686(b)(2)	Gases which exit from a melt shop and, due solely to operations of any affected EAF(s), exhibit 6% opacity or greater shall not be discharged into the atmosphere from an EAF.	§ 63.10686(d)(2)	None	None
DUSTHDLG2	EU	60AAa	PM (OPACITY)	40 CFR Part 60, Subpart AAa	§ 60.272a(b)	On or after the date of the performance test (by §60.8)no owner or operator shall allow discharge into the atmosphere from dust handling system any gases that exhibit 10 percent opacity or greater.	§ 60.273a(b) § 60.275a(d) § 60.275a(e) § 60.275a(e)(3)	None	None
EAF-2	EU	60AAa	PM	40 CFR Part 60, Subpart AAa	§ 60.272a(a)(1)	Gases which exit from a control device and contain particulate matter in excess of 12 mg/dscm (0.0052 gr/dscf) shall not be discharged into the atmosphere.	§ 60.274a(d) [G]§ 60.274a(h) § 60.275a(a) § 60.275a(d) § 60.275a(e) § 60.275a(e)(1) § 60.275a(e)(4) § 60.275a(f) § 60.275a(g) § 60.275a(j)	§ 60.274a(d) § 60.276a(a)	[G]§ 60.276a(f)
EAF-2	EU	60AAa	PM (OPACITY)	40 CFR Part 60, Subpart AAa	§ 60.272a(a)(2)	Gases which exit from a control device and exhibit 3 percent opacity or greater shall not be discharged into the atmosphere.	§ 60.273a(c) § 60.273a(e) § 60.273a(e)(1) § 60.273a(e)(2) § 60.273a(e)(3) [G]§ 60.273a(e)(4)	§ 60.273a(c) § 60.273a(e)(2) § 60.276a(a) § 60.276a(h) § 60.276a(h)(1) § 60.276a(h)(2)	[G]§ 60.273a(e)(4) [G]§ 60.273a(e)(6) § 60.276a(b) [G]§ 60.276a(f)

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
							§ 60.273a(e)(5) [G]§ 60.273a(e)(6) § 60.273a(e)(7) § 60.273a(e)(8) [G]§ 60.273a(f) § 60.273a(g) [G]§ 60.274a(h) § 60.275a(d) § 60.275a(e) § 60.275a(e)(3) § 60.275a(e)(4) § 60.275a(j)	§ 60.276a(h)(3)	
EAFBLDFUG	EU	60AAa	PM (OPACITY)	40 CFR Part 60, Subpart AAa	§ 60.272a(a)(3)	Gases which exit from a shop and exhibit 6 percent opacity or greater due to the operations of any affected EAF(s) or AOD vessel(s) shall not be discharged into the atmosphere.	§ 60.273a(d) § 60.274a(a)(2) § 60.274a(c) § 60.274a(f) [G]§ 60.274a(h) § 60.275a(c) § 60.275a(d) § 60.275a(e) § 60.275a(e)(3) § 60.275a(e)(4) § 60.275a(f) § 60.275a(i) § 60.275a(j)	§ 60.273a(d) § 60.274a(a)(2) § 60.274a(c) § 60.276a(a) § 60.276a(g)	§ 60.276a(c) [G]§ 60.276a(f) § 60.276a(g)

**Additional Monitoring Requirements**

**Compliance Assurance Monitoring Summary ..... 21**

**Periodic Monitoring Summary..... 23**

## CAM Summary

<b>Unit/Group/Process Information</b>	
ID No.: EAF-1	
Control Device ID No.: BH-1	Control Device Type: Fabric Filter
<b>Applicable Regulatory Requirement</b>	
Name: 40 CFR Part 63, Subpart YYYYY	SOP Index No.: 63YYYYY
Pollutant: PM	Main Standard: § 63.10690(b)(6)
<b>Monitoring Information</b>	
Indicator: Pressure drop	
Minimum Frequency: Monitor continuously and record once per day	
Averaging Period: Daily	
Deviation Limit: Pressure drop shall be at least 2 inches water gauge pressure and shall not exceed 10 inches water gauge when equipment is in operation.	
<p>CAM Text: Permit holder shall install, calibrate, and maintain a device to continuously monitor and record pressure drop in baghouse BH-1. The monitoring device shall be calibrated in accordance with the manufacturer's specifications and shall be calibrated at least annually and shall be accurate to within a range of <math>\pm 0.5</math> inches water gauge pressure (<math>\pm 125</math> pascals); or a span of <math>\pm 0.5</math> percent.</p> <p>A minimum and maximum pressure drop shall be maintained at or above 2 inches water and at or below 10 inches water for baghouse BH-1 prior to the initial stack test. After the initial stack test has been completed, the pressure drop limits shall be adjusted through a permit alteration. The actual pressure drop shall be recorded at least one time per day.</p> <p>Daily Inspection shall be conducted when the EAF unit is in operation.</p>	

## CAM Summary

<b>Unit/Group/Process Information</b>	
ID No.: EAF-2	
Control Device ID No.: BH-2	Control Device Type: Fabric Filter
<b>Applicable Regulatory Requirement</b>	
Name: 40 CFR Part 63, Subpart YYYYY	SOP Index No.: 63YYYYY
Pollutant: PM	Main Standard: § 63.10690(b)(6)
<b>Monitoring Information</b>	
Indicator: Pressure drop	
Minimum Frequency: Monitor continuously and record once per day	
Averaging Period: Daily	
Deviation Limit: Pressure drop shall be at least 7 inches water gauge pressure and shall not exceed 20 inches water gauge when equipment is in operation.	
<p>CAM Text: Permit holder shall install, calibrate, and maintain a device to continuously monitor and record pressure drop in baghouse BH-2. The monitoring device shall be calibrated in accordance with the manufacturer's specifications and shall be calibrated at least annually and shall be accurate to within a range of <math>\pm 0.5</math> inches water gauge pressure (<math>\pm 125</math> pascals); or a span of <math>\pm 0.5</math> percent.</p> <p>A minimum and maximum pressure drop shall be maintained at or above 7 inches water and at or below 20 inches water for baghouse BH-2 prior to the initial stack test. After the initial stack test has been completed, the pressure drop limits shall be adjusted through a permit alteration. The actual pressure drop shall be recorded at least one time per day.</p> <p>Daily inspection shall be conducted when the EAF unit is in operation.</p>	

## Periodic Monitoring Summary

<b>Unit/Group/Process Information</b>	
ID No.: EAF-1/BH-1A	
Control Device ID No.: N/A	Control Device Type: N/A
<b>Applicable Regulatory Requirement</b>	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-1
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
<b>Monitoring Information</b>	
Indicator: Opacity	
Minimum Frequency: Once per month	
Averaging Period: Six-minutes	
Deviation Limit: Opacity greater than 15% is a deviation.	
<p>Periodic Monitoring Text: Opacity shall be monitored, by a certified observer, for at least one, six-minute period in accordance with Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Appendix A, Test Method 9. Any opacity readings above the deviation limit shall be reported as a deviation.</p>	

## Periodic Monitoring Summary

<b>Unit/Group/Process Information</b>	
ID No.: EAF-1/BH-1B	
Control Device ID No.: N/A	Control Device Type: N/A
<b>Applicable Regulatory Requirement</b>	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-1
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
<b>Monitoring Information</b>	
Indicator: Opacity	
Minimum Frequency: Once per month	
Averaging Period: Six-minutes	
Deviation Limit: Opacity greater than 15% is a deviation.	
<p>Periodic Monitoring Text: Opacity shall be monitored, by a certified observer, for at least one, six-minute period in accordance with Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Appendix A, Test Method 9. Any opacity readings above the deviation limit shall be reported as a deviation.</p>	

## Periodic Monitoring Summary

<b>Unit/Group/Process Information</b>	
ID No.: MRFSTK	
Control Device ID No.: N/A	Control Device Type: N/A
<b>Applicable Regulatory Requirement</b>	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-1
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(A)
<b>Monitoring Information</b>	
Indicator: Visible Emissions	
Minimum Frequency: once per calendar quarter	
Averaging Period: n/a	
Deviation Limit: Opacity greater than 30% is a deviation.	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

**Permit Shield**

**Permit Shield ..... 27**

## Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
COLNGTOWR	N/A	40 CFR Part 63, Subpart Q	The source is not an industrial process cooling tower that is operated with chromium-based water treatment chemicals.
EAF-1	N/A	40 CFR Part 60, Subpart AA	Dust handling equipment was constructed or modified prior to October 21, 1974.
GRP-FURNCE	HEATTREAT, MILLSTACK	30 TAC Chapter 112, Sulfur Compounds	Units do not fire with liquid or solid fuel.
PARTSCLENR	N/A	30 TAC Chapter 115, Degreasing Processes	Remote reservoir cold solvent cleaner uses solvent with a true vapor pressure equal to or less than 0.6 psia measured at 100 degrees Fahrenheit and has a drain area less than 16 square inches and waste solvent is disposed in enclosed containers.
DUSTHDLG1	N/A	40 CFR Part 60, Subpart AA	Dust handling equipment was not constructed or modified after October 21, 1974.
EAF-1 FUG	N/A	40 CFR Part 60, Subpart AA	Electric arc furnace was not constructed or modified after October 21, 1974.
EAF-2 FUG	N/A	40 CFR Part 60, Subpart AA	Electric arc furnace was not constructed or modified after October 21, 1974.

**New Source Review Authorization References**

**New Source Review Authorization References ..... 29**

**New Source Review Authorization References by Emission Unit..... 30**

## New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

<b>Prevention of Significant Deterioration (PSD) Permits</b>	
PSD Permit No.: PSDTX1204	Issuance Date: 12/06/2013
<b>Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.</b>	
Authorization No.: 19933	Issuance Date: 12/06/2013
Authorization No.: 1672	Issuance Date: 02/18/2013
<b>Permits By Rule (30 TAC Chapter 106) for the Application Area</b>	
Number: 106.144	Version No./Date: 03/14/1997
Number: 106.371	Version No./Date: 03/14/1997
Number: 106.454	Version No./Date: 11/01/2001
Number: 7	Version No./Date: 12/01/1972
Number: 7	Version No./Date: 08/30/1988
Number: 57	Version No./Date: 11/05/1986

### New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
COLNGTOWR	ON-SITE COOLING TOWER	106.371/03/14/1997
DUSTHDLG1	DUST CONVEYING, TREATING, AND TRANSFER EQUIPMENT	19933, PSDTX1204
DUSTHDLG2	DUST CONVEYING, TREATING, AND TRANSFER EQUIPMENT	19933, PSDTX1204
EAF-1 FUG	ELECTRIC ARC FURNACE #1	19933, PSDTX1204
EAF-1/BH-1A	BAG HOUSE CONTROL DEVICE STACK 1A	19933, PSDTX1204
EAF-1/BH-1B	BAG HOUSE CONTROL DEVICE STACK 1B	19933, PSDTX1204
EAF-1	BAGHOUSE CONTROL DEVICE STACK 1A AND 1B	19933, PSDTX1204
EAF-2 FUG	ELECTRIC ARC FURNACE #2	19933, PSDTX1204
EAF-2	BAGHOUSE CONTROL DEVICE STACK 2A AND 2B	19933, PSDTX1204
EAFBLDFUG	EAF BUILDING FUGITIVES, CASTER AND TUNDISH HEATERS	19933, PSDTX1204
HEATTREAT	BALL MILL HEAT TREAT LINE	57/11/05/1986
MILLSTACK	MILLSTACK	19933, PSDTX1204
MRFSTK	MILL BILLET REHEAT STACK	19933, PSDTX1204
PARTSCLNDR	SAFETY KLEEN PARTS CLEANING RM	106.454/11/01/2001

**Appendix A**

**Acronym List ..... 32**

## Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM	.....	actual cubic feet per minute
AMOC	.....	alternate means of control
ARP	.....	Acid Rain Program
ASTM	.....	American Society of Testing and Materials
B/PA	.....	Beaumont/Port Arthur (nonattainment area)
CAM	.....	Compliance Assurance Monitoring
CD	.....	control device
COMS	.....	continuous opacity monitoring system
CVS	.....	closed-vent system
D/FW	.....	Dallas/Fort Worth (nonattainment area)
DR	.....	Designated Representative
ELP	.....	El Paso (nonattainment area)
EP	.....	emission point
EPA	.....	U.S. Environmental Protection Agency
EU	.....	emission unit
FCAA Amendments	.....	Federal Clean Air Act Amendments
FOP	.....	federal operating permit
GF	.....	grandfathered
GHG	.....	Green House Gas
gr/100 scf	.....	grains per 100 standard cubic feet
HAP	.....	hazardous air pollutant
H/G/B	.....	Houston/Galveston/Brazoria (nonattainment area)
H <sub>2</sub> S	.....	hydrogen sulfide
ID No.	.....	identification number
lb/hr	.....	pound(s) per hour
MMBtu/hr	.....	Million British thermal units per hour
MRRT	.....	monitoring, recordkeeping, reporting, and testing
NA	.....	nonattainment
N/A	.....	not applicable
NADB	.....	National Allowance Data Base
NO <sub>x</sub>	.....	nitrogen oxides
NSPS	.....	New Source Performance Standard (40 CFR Part 60)
NSR	.....	New Source Review
ORIS	.....	Office of Regulatory Information Systems
Pb	.....	lead
PBR	.....	Permit By Rule
PM	.....	particulate matter
ppmv	.....	parts per million by volume
PSD	.....	prevention of significant deterioration
RO	.....	Responsible Official
SO <sub>2</sub>	.....	sulfur dioxide
TCEQ	.....	Texas Commission on Environmental Quality
TSP	.....	total suspended particulate
TVP	.....	true vapor pressure
U.S.C.	.....	United States Code
VOC	.....	volatile organic compound

**Appendix B**

**Major NSR Summary Table..... 34**

Permit Number: 19933 and PSDTX1204				Issuance Date: 12/6/2013			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (7)		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
BH-1A and B	Baghouse 1 stacks A and B EAF 1 and Ladle Lancing	Total PM/PM10 (5)	8.07	35.36	5, 6, 21, 23, 24, 25-29, 34-37	5, 6, 26, 31, 33, 37, 38	5, 33, 37
		VOC	22.24	74.13			
		NOx	35.06	116.42			
		CO	427.68	1425.60			
		SO2	31.36	104.54			
		Cd	<0.01	0.02			
		Cr	0.01	0.05			
		Ni	<0.01	0.01			
		Pb	0.14	0.62			
		Mn	0.13	0.55			
Zn	1.65	7.23					
BH-2A and B	Baghouse 2 stacks A and B EAF 2	Total PM/PM10 (5)	14.15	61.96	5, 6, 21, 23, 24, 25-29, 34-37	5, 6, 26, 31, 33, 37, 38, 39	5, 33, 37, 39
		VOC	22.24	74.13			
		NOx	34.93	116.42			
		CO	427.68	1425.60			
		SO2	31.36	104.54			
		Cd	0.01	0.03			
		Cr	0.02	0.09			
		Ni	0.003	0.02			
		Pb	0.25	1.09			
		Mn	0.22	0.97			
Zn	2.89	12.67					
BH-1A and B; and BH-2A and B	Baghouse 1 and 2 Emission Cap for Both EPNs	VOC NOx CO SO2		74.13 116.42 1425.60 104.54	5, 6, 21, 23, 24, 25-29, 34-37	5, 6, 26, 31, 33, 37, 38	5, 37
LADLANFUG	Ladle Lancing (5)	Total PM	0.0002	0.001		38	
		PM 10	0.0002	0.001			
		VOC	<0.01	<0.01			
		NOx	0.03	0.14			
		CO	<0.01	<0.01			
SO2	<0.01	<0.01					
LDLHTRFUG	4 Ladle Heaters (5)	Total PM	0.23	0.65	3	3, 38	
		PM 10	0.06	0.16			
		VOC	0.17	0.47			
		NOx	3.04	8.59			
		CO	2.55	7.21			
SO2	0.02	0.05					
LIMESILO	Lime Silo Filter Stack	Total PM	0.51	1.72	6	38	
		PM10	0.51	1.72			
BALLFUG	Ball Mill Building (5) Fugitives 1 Hardening Furnace, 1 Tempering Furnace, and Ball Mill Reheat Furnace	Total PM	0.36	1.28	3, 8, 21	3,8, 38	
		PM 10	0.09	0.32			
		VOC	0.26	0.92			
		NOx	4.74	16.82			
		CO	3.98	14.13			
SO2	0.03	0.10					

Permit Number: 19933 and PSDTX1204				Issuance Date: 12/6/2013			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (7)		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
EAFBLDGFUG	EAF Building Fugitives (5) EAF 1, EAF 2, Caster and Tundish Heater	Total PM (5) PM10 (5) VOC NOx CO SO2 Cd Cr Ni Pb Mn Zn	0.26 0.23 0.02 2.54 0.28 0.01 <0.01 <0.01 <0.01 <0.01 <0.01 0.06	0.45 0.38 0.05 8.58 0.76 0.03 <0.01 <0.01 <0.01 0.02 0.01 0.18	4, 7, 21, 22	3, 4, 7, 38, 39	39
CASTORCH	Caster Torches	Total PM PM 10 VOC NOx CO SO2	0.02 0.01 0.02 0.27 0.23 <0.01	0.09 0.02 0.07 1.20 1.01 <0.01		3, 38	
MILLFUG	Mill Reheat Furnace (5) Fugitives	Total PM PM 10 VOC NOx CO SO2	<0.01 <0.01 <0.01 0.36 0.11 <0.01	0.04 0.01 0.03 1.35 0.40 <0.01	8, 21	3, 8, 38	
MRFSTK	Mill Billet Reheat Stack, Billet Reheat Furnace	Total PM PM 10 VOC NOx CO SO2	0.96 0.24 0.69 35.33 10.60 0.08	3.62 0.91 2.62 133.54 40.06 0.29	6, 21	3, 38	
SCRAPLOAD	Scrap Metal Loading and Handling Fugitives (5)	Total PM PM 10	0.84 0.41	2.82 1.38		38	
SLAG CAP	Total slag emissions-CAP Slag South Disposal Area, Slag Landfill Disposal Area and Slag North Disposal Area	Total PM PM 10 Pb	0.70 0.35 0.0007	2.32 1.16 0.0023		38	
MELTSHOPCT	Melt Shop cooling Tower	Total PM PM 10	0.63 0.31	2.76 1.38		38	
ROLLMILLCT	Rolling Mill cooling Tower	Total PM PM 10	0.88 0.44	3.90 1.92		38	
BALLMILLCT	Ball Mill Cooling Tower	Total PM PM 10	0.12 0.08	0.53 0.37		38	

Permit Number: 19933 and PSDTX1204				Issuance Date: 12/6/2013			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (7)		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
ALL	All Sources	Any HAP All HAPs		<10 <25		38	

Footnotes:

- (1) Emission point identification—either specific equipment designation or emission point number from a plot plan.
- (2) Specific point sources names. For fugitive sources, use an area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code 101.1  
NOx - total oxides of nitrogen  
SO2 - sulfur dioxide  
PM -particulate matter, suspended in the atmosphere, including PM10 and PM2.5  
PM10 - particulate matter equal to or less than 10 microns in diameter  
PM2.5 - particulate matter equal to or less than 2.5 microns in diameter  
CO - carbon monoxide  
Cd - cadmium  
Cr - chromium  
Ni -nickel  
Pb - lead  
Mn - manganese  
Zn - zinc  
HAP - hazardous air pollutant as listed in 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
- (4) Compliance with annual emissions limits is based on a rolling 12-month period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) Speciated metal/HAPs are included in the PM/PM10 values.
- (7) Planned startup and shutdown emissions are included. Maintenance activities are not authorized by this permit and will need separate authorization unless the activity can meet conditions 30 TAC 116.119.

## Special Conditions

Permit Number 19933 and PSDTX 1204

### Emission Limitations

1. This permit authorizes only those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and those sources are limited to the emission rates and other conditions specified in the table. In addition, this permit authorizes all emissions from planned startup and shutdown activities associated with facilities or groups of facilities authorized by this permit. **(06/13)**

### Fuel Specifications

2. Fuel for the 130 Million British thermal units per hour (MMBtu/hr.) Mill Billet Reheat Furnace (Emission Point No.[EPN] MRFSTK), four ladle heaters (EPN LDLHTRFUG), tundish heaters (EPN EAFBLDGFUG), Ball Mill Reheat Furnace, one hardening furnace, and one tempering furnace (EPN BALLFUG), caster torches (EPN CASTORCH), miscellaneous plant heaters, and the 15 MMBtu/hr. auxiliary burners for the two electric arc furnaces (EAFs) (EPNs BH-1A, BH-1B, BH-2A, and 2B) shall be pipeline-quality natural gas. Use of any other fuel will require prior approval of the Executive Director of the Texas Commission on Environmental Quality (TCEQ). **(12/13)**
3. Upon request by the Executive Director of the TCEQ or the TCEQ Regional Director or any local air pollution control program having jurisdiction, the holder of this permit shall provide a sample and/or an analysis of the fuels used in these facilities or shall allow air pollution control program representatives to obtain a sample for analysis.

### Federal Applicability

4. When installation of the new 40 megavolt ampere (MVA) transformer on EAF2 is complete, EAF2 shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources in Title 40 Code of Federal Regulations (40 CFR) Part 60, specifically the following:
  - A. Subpart A - General Provisions; and
  - B. Subpart AAa - Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed after August 17, 1983. **(12/13)**
5. These facilities shall comply with all applicable requirements of the EPA Regulations on National Emission Standards for Hazardous Air Pollutants for Source Categories in 40 CFR Part 63, specifically the following:
  - A. Subpart A - General Provisions; and
  - B. Subpart YYYYYY - Electric Arc Furnace Steelmaking Facilities

### **Opacity/Visible Emission Limitations**

6. Opacity of particulate matter emissions from Baghouse 1 Stacks A and B (EPN's BH-1A and BH-1B), Baghouse 2 Stacks A and B (EPN BH-2A and BH-2B), Lime Silo Filter Stack (EPN LIMESILO), and Mill Billet Reheat Stack (EPN MRFSTK) shall not exceed 5 percent. Determination of compliance with this requirement shall be made by first observing for visible emissions during normal plant operations. Observations shall be made at least 15 feet and no more than 0.25 mile from the emission point. If visible emissions are observed from the emission point, opacity shall be determined using the EPA 40 CFR Part 60, Appendix A, Test Method 9. Contributions from uncombined water vapor shall not be included in determining compliance with this condition. Determination of compliance with this requirement shall be performed and the results recorded quarterly. **(12/13)**
7. Opacity of fugitive emissions from the Meltshop/Caster Building (EPN EAFBLDGFUG), due solely to the operation of EAF1 and/or EAF2 shall not exceed 6% averaged over a 6-minute-period as measured by U.S. EPA TM 9 or equivalent. Caster and nitrogen stirring shall be subject to a 10% six-minute average opacity limit, except for one 6-minute period per hour shall not exceed 20%. The 40 CFR Part 63, Subpart YYYYY 6% opacity requirement does not regulate the caster and nitrogen stirring activities. Determination of compliance with this requirement shall be made by first observing for visible emissions during normal plant operations. Observations shall be made at least 15 feet and no more than 0.25 mile from the emission point. If visible emissions are observed from the emission point, opacity shall be determined using the EPA 40 CFR Part 60, Appendix A, Test Method 9. Contributions from uncombined water vapor shall not be included in determining compliance with this condition. Determination of compliance with this requirement shall be performed and the results recorded quarterly. Opacity shall not exceed the limits set forth in 30 TAC Chapter 111, Control of Air Pollution from Visible Emissions and Particulate Matter, during planned maintenance, startup, and shutdown. **(12/13)**
8. There shall be no visible fugitive emissions leaving the property from the Meltshop/Caster Building, the Rolling Mill Building, the Ball Mill Building, or roads and travel areas. Observations for visible emissions shall be performed and recorded quarterly. The visible emissions determination shall be made during normal plant operations. Observations shall be made on the downwind property line for a minimum of six minutes. If visible emissions are observed, an evaluation must be accomplished in accordance with the EPA 40 CFR Part 60, Appendix A, Test Method 22, using the criteria that visible emissions shall not exceed a cumulative 30 seconds in duration in any six-minute period. If visible emissions exceed the Test Method 22 criteria, corrective action to eliminate the excessive visible emissions shall be taken promptly and documented within 24 business hours of first observing the visible emissions. **(12/13)**

### **Operational Limitations, Work Practices, and Plant Design**

9. Plant operations and production are limited to the following:
  - A. As represented, the molten steel throughput of the two EAFs and the continuous caster shall not exceed 48 tons per hour (TPH) and 320,000 tons per year (TPY) of

steel in any rolling 12-month period. Tons of steel shall be measured by operating hours and tons of steel produced as measured by the cast weight and averaged over a 24-hour day. **(12/13)**

- B. Natural gas usage at the Rolling Mill Reheat Furnace and the Ball Mill Reheat Furnace shall not exceed 963.5 and 263.3 million standard cubic feet MMscf/year respectively.
  - C. Natural gas usage at the Ball Mill Hardening Furnace and Tempering Furnace shall not exceed 73.1 MMscf/year.
  - D. Plant wide natural gas usage shall not exceed 1,865 MMscf/ year.
  - E. The capacity of the transformers that supply electrical power to EAF 1 and EAF 2 shall not exceed 25 MVA and 40 MVA respectively. Three transformers are authorized, two active and one spare, but no more than two shall be employed simultaneously. **(12/13)**
10. The EAF auxiliary burners shall employ oxygen injection and carbon injection will be employed as a source of carbon.
  11. The fabric filter exhausting at EPN BH-1A and 1B shall achieve a maximum air flow of 165,215 dry standard cubic foot per minute (dscf/m) and an outlet grain loading  $\leq 0.0032$  grain per dry standard cubic foot (gr/dscf) front half and  $\leq 0.0057$  gr/dscf front and back half.
  12. The fabric filter exhausting at EPN BH-2A and 2B shall achieve a maximum air flow of 289,564 dry standard cubic foot per minute (dscf/m) and an outlet grain loading  $\leq 0.0032$  grain per dry standard cubic foot (gr/dscf) front half and  $\leq 0.0057$  gr/dscf front and back half.
  13. Emissions from the EAFs during meltdown and refining operations shall be exhausted by a "direct shell evacuation" capture system that exhausts to a fabric filter with vertical discharge. Additionally, canopy hoods, as represented in the permit application shall be located above each EAF to capture fugitive emissions from charging and tapping. The canopy hoods shall exhaust through fabric filters with a vertical discharge.
  14. The Meltshop/Caster Building shall be enclosed except as represented in the permit application and there shall not be any roof openings, vents, or monitors other than the roof monitor located immediately above the caster. Openings/doors other than the scrap bucket entrance door shall employ full length vertical hanging strips to reduce fugitive emissions. Additionally, the building shall be maintained and/or repaired as necessary to be free of holes or cracks to contain emissions and prevent building fugitive emissions. **(12/13)**
  15. Dust collected from the EAF fabric filters shall be pelletized prior to disposal.
  16. Replaced or used EAF fabric filter bags shall be placed in sealed containers and disposed of

in a manner that will prevent any dust from becoming airborne.

17. All air pollution abatement equipment shall be properly maintained and operated during the operation of these facilities. Cleaning and maintenance of the abatement equipment shall be performed as recommended by the manufacturer and as necessary so that the equipment efficiency can be adequately maintained.
18. All hood, duct, and collection systems shall be effective in capturing emissions from process equipment and in minimizing fugitive emissions from the buildings. The hood and duct systems shall be maintained free of holes, cracks, and other conditions that would reduce the collection efficiency of the emission capture system as represented in the application.
19. This facility shall not create a nuisance as defined in 30 TAC § 101.4 as adopted by the TCEQ. If such a condition does occur, additional controls may be required.
20. All plant roads and working areas subject to traffic and slag storage and processing areas shall be sprinkled with water or dust suppressant chemicals as necessary to control dust emissions.

### **Initial Determination of Compliance**

21. The holder of this permit shall perform initial stack sampling and other testing to establish the actual quantities of air contaminants being emitted into the atmosphere within 180 days of completion of all modifications required by this permit, but not later than June 30, 2011. Unless otherwise specified by this condition, the sampling and testing shall be conducted in accordance with the methods and procedures specified in Sampling Requirements below.
  - A. Demonstrate compliance with the maximum allowable emission rates for the EAF Baghouse Stacks, EPN BH-1A, BH-1B, BH-2A, and BH-2B.
    - (1) Air contaminants to be tested for include particulate matter (PM), particulate matter equal to or less than 10 microns in diameter (PM<sub>10</sub>), nitrogen oxide (NO<sub>x</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), volatile organic compounds (VOC), chromium, lead, and manganese.
    - (2) Sampling to demonstrate maximum emissions shall occur during the entire heat cycle (from beginning of charge thru the completion of the furnace tap).  
Sampling to demonstrate compliance shall occur during normal EAF operations.
  - B. Demonstrate compliance with the stack flow rate requirement for the EAF Baghouse Stacks EPN BH-1A, BH-1B, BH-2A, and BH-2B as represented in the permit Special Condition Nos. 11 and 12.
  - C. Demonstrate compliance with the outlet grain loading limitations as specified in Special Condition Nos. 11 and 12.

- D. Demonstrate compliance with requirements of the Federal Regulations identified in Special Condition No. 4 and 5. **(12/13)**
22. The holder of this permit shall perform initial stack sampling and other testing to establish the actual quantities of particulate matter being emitted into the atmosphere within 60 days after achieving maximum production, but no later than 180 days of initial startup of EAF2 following completion of the transformer replacement authorized December 6, 2013. This testing shall be done in accordance with 40 CFR Part 60 Subpart A and Subpart AA for demonstrating compliance with Special Condition No. 4. **(12/13)**

### **Demonstration of Continuous Compliance**

23. Upon being informed by the TCEQ Executive Director that the staff has documented visible emissions from this facility exceeding opacity of emissions stated in Special Condition Nos. 6, 7, and/or 8 the holder of this permit shall conduct stack sampling analyses as appropriate or take immediate corrective action to demonstrate compliance. **(12/13)**
24. Upon request by the Executive Director of the TCEQ or any local air pollution control program having jurisdiction, the holder of this permit shall perform net ground level concentration sampling and/or stack sampling as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere. If applicable, sampling must be conducted in accordance with appropriate procedures of the TCEQ Sampling Procedures Manual or in accordance with applicable EPA Code of Federal Regulations procedures. Any deviations from those procedures must be approved by the TCEQ Executive Director prior to sampling. **(12/13)**
25. The holder of this permit shall equip each of the fabric filters exhausting at EPNs BH-1A, BH-1B, BH-2A, and BH-2B with a Bag Leak Detection monitor. The monitoring device shall be installed, operated, calibrated, and maintained in a manner consistent with EPA Office of Air Quality Planning and Standards, Fabric Filter Bag Leak Detection Guidance (EPA-454/R-98-015). **(12/13)**
26. The holder of this permit shall install, calibrate, and maintain a device to continuously monitor and record pressure drop in baghouse BH-1 and BH-2. The monitoring device shall be calibrated in accordance with the manufacturer's specifications and shall be calibrated at least annually and shall be accurate to within a range of  $\pm 0.5$  inches water gauge pressure ( $\pm 125$  pascals); or a span of  $\pm 0.5$  percent.

A minimum and maximum pressure drop shall be maintained at or above 2 inches water for baghouse No. 1 and 7 inches water for baghouse No. 2 and at or below 10 inches water for baghouse No. 1 and 20 inches water for baghouse No. 2 prior to the initial stack test performed in accordance with Special Condition No. 21. After the initial stack test has

been completed, the pressure drop limits shall be adjusted through a permit alteration. The actual pressure drop shall be recorded at least one time per day.

27. Upon demonstration that operating conditions upon which the maximum differential pressure would ever need to be changed, the TCEQ Executive Director may grant a request to re-establish the maximum differential pressure.
28. The holder of this permit shall continuously operate the differential pressure monitoring system(s) when the fabric filter baghouse(s) are operating.
29. The holder of this permit shall install, calibrate, and maintain a device to continuously monitor and record the fan motor amperage for each baghouse fan. The monitors shall be installed prior to the stack test required by Special Condition No. 21 and the stack test shall be used to establish the fan motor amperage operating range. The lowest fan amp operating range shall be established over a minimum of three test runs (or heat cycles). Subsequently, any heat cycle that drifts 85% below the lowest value established during stack testing shall require inspection and corrective action if necessary, and reporting if it results in a reportable emission event.
30. Upon completion of the transformer replacement authorized December 6, 2013, the holder of this permit shall comply with the emission monitoring requirements of 40 CFR §§ 60.273a and 60.274a for EAF2. **(12/13)**
31. The holder of this permit may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging times specified, for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances in order to avoid reporting deviations. All monitoring data shall be collected in accordance with the requirements specified in 40 CFR § 64.7(c).
32. The control devices shall not have a bypass.
33. The TCEQ Regional Office shall be notified as soon as possible after the discovery of any monitor malfunction, which is expected to result in more than 24 hours of lost data. Necessary corrective action shall be taken if the downtime exceeds 5 percent of the (emissions source) operating hours in the quarter. Failure to complete any corrective action as directed by the TCEQ Regional Office may be deemed a violation of the permit.
34. After the initial demonstration of compliance, on-going stack sampling for PM, PM<sub>10</sub>, NO<sub>x</sub>, CO, VOC, SO<sub>2</sub>, and lead (Pb) and the recorded exhaust flow rate from of EAF Baghouse Stacks (EPNs BH-1A, BH-1B, BH-2A, and BH-2B) shall be used to demonstrate continuous compliance. The holder of this permit may request the TCEQ Executive Director to approve alternate sampling techniques or other means to determine the opacity, rates, composition, and/or concentration of emissions in accordance with 30 TAC § 101.8. Sampling shall occur within 60 days of the anniversary date of the latest compliance sampling. Requests for additional time to perform sampling shall be submitted to the TCEQ Regional Office.

- A. Stack sampling shall be performed once annually during periods of normal operation, except as follows:
    - (1) If, after two years of stack sampling, the average of the two annual stack sampling results for a pollutant is less than 70 percent of the maximum allowable emission rate, then compliance stack sampling for such pollutant may be conducted once every three years.
    - (2) After initial testing, periodic Total PM/back half testing will not be required until a replacement EPA approved test for condensable PM testing has been adopted.
  - B. Sampling required by this Special Condition shall demonstrate compliance with the lb./hr. emission limits of the MAERT and the exhaust flow rate limitation of EAF Baghouse 1 Stacks (EPN's BH-1A, BH-1B, BH-2A, and BH-2B)
  - C. Sampling required by this Special Condition shall be conducted in accordance with the methods, procedures, and notification protocol specified in Sampling Requirements below.
35. The holder of this permit shall perform monthly inspections to verify proper operation of capture systems to verify there are no holes, cracks and/or other conditions that would reduce the collection efficiency of the emission capture system as represented. If the results of the inspections indicate that the capture system is not operating properly, the permit holder shall take necessary corrective actions within five (5) days.

### **Sampling Requirements**

36. Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual, or applicable EPA Methods in 40 CFR Part 60, Appendix A.
- A. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling ports and platform(s) shall be installed on the exhaust stack according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities" prior to stack sampling. Alternate sampling facility designs may be submitted for approval by the Executive Director of the TCEQ.
  - B. Test methods to be used are as follows:
    - (1) Appendix A, Method 5, per TCEQ Lab Method for the concentration of PM;
    - (2) Appendix A, Method 5 or 17, for the filterable concentration of PM (front-half catch);

- (3) Appendix A, Method 6, 6a, 6c, or 8, for the concentration of SO<sub>2</sub>;
  - (4) Appendix A, Method 7E for the concentrations of NO<sub>x</sub> and O<sub>2</sub>, or equivalent methods;
  - (5) Appendix A, Method 9 for opacity;
  - (6) Appendix A, Method 10 for the concentration of CO;
  - (7) Appendix A, Method 22, for visual determination of fugitive emissions from material sources;
  - (8) Appendix A, Method 25A, modified to exclude methane and ethane, for the concentration of VOC (to measure total carbon as propane);
  - (9) Appendix A, Method 29 for the concentration of chromium, lead, and manganese;
  - (10) Appendix M, Method 202, or Appendix A, Reference Method 5, modified to include back-half condensibles, for the concentration of PM<sub>10</sub>;
  - (11) Appendix M, Methods 201A or Appendix A, Reference Method 5, for the filterable concentration of PM<sub>10</sub> (front-half catch);
  - (12) Any variations from these procedures must be approved by the Executive Director of the TCEQ or his designated representative prior to sampling.
37. If testing is required, a pretest meeting concerning the required monitoring shall be held with personnel from the TCEQ before the required tests are performed.
- A. Sampling shall occur within 60 days of being informed that testing other than that set forth specifically in this permit is required.
  - B. The TCEQ El Paso Regional Office shall be notified not less than 45 days prior to sampling to schedule a pretest meeting. The notice to the TCEQ El Paso Regional Office shall include:
    - (1) Date for pretest meeting.
    - (2) Date sampling shall occur.
    - (3) Name of firm conducting sampling.
    - (4) Type of sampling equipment to be used.
    - (5) Method or procedure to be used in sampling.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports. The permit holder shall present at the pretest meeting the manner in which stack sampling will be executed in order to demonstrate compliance with emission.

- C. A written proposed description of any deviation from sampling procedures specified in permit conditions or the TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ El Paso Regional Office shall approve or disapprove of any deviation from specified sampling procedures.
- D. If stack testing results for any pollutant is > 70% of the applicable emission limit, the permit holder shall be limited to the hourly EAF production rates established during testing (up to +10%). Additional stack testing shall be required when higher production rates are achieved.
- E. The sampling report shall include the following:
  - (1) Plant production rate in tons of steel melted per hour;
  - (2) The amperage of the fan motors shall be recorded along with the corresponding test value of volumetric air flow related to that fan motor for each fabric filter stack tested;
  - (3) Fuel consumption rate in standard cubic feet per minute; and
  - (4) Any other pertinent parameters, as determined at the pretest meeting.
- F. One copy of the final sampling report shall be submitted within 60 days after sampling is completed. Sampling reports shall comply with the provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the TCEQ El Paso Regional Office

### **Recordkeeping Requirements**

- 38. Records shall be maintained at this facility site and made available at the request of personnel from the TCEQ or any other air pollution control program having jurisdiction to demonstrate compliance with permit limitations. These records shall be totaled for each calendar month, retained for a rolling 60-month period, and include the following:
  - A. Quarterly observations for visible emissions and/or opacity determinations from Baghouse 1 Stacks A and B (EPN's BH-1A and BH1-B), Baghouse 2 Stacks A and B (EPN BH-2A and BH-2B), Lime Silo Filter Stack (EPN LIMESILO), Mill Billet

Reheat Stack (EPN MRFSTK), Meltshop/Caster Building (EPN EAFBLDGFUG), Rolling Mill Building, and Ball Mill Building; **(12/13)**

- B. A daily record of operating hours and steel produced in tons per 24-hour period. From this data, average hourly production shall be calculated;
  - C. A record of annual steel production in tons on a rolling 12-month basis;
  - D. Annual natural gas usage for the Rolling Mill Reheat Furnace, Ball Mill Reheat Furnace, and Ball Mill Hardening and Tempering Furnaces;
  - E. Annual natural gas usage for the facility;
  - F. Records of the inspection, maintenance, malfunction, and repair of abatement equipment. Inspections of capture systems and abatement devices shall be recorded as they occur;
  - G. All monitoring data and support information as specified in 30 TAC § 122.144;
  - H. Records of the differential pressure readings required for fabric filters listed in Special Condition No. 26;
  - I. Records of monthly inspections required by Special Condition No. 35 and actions taken;
  - J. Records of the calibration of monitoring devices identified in Special Conditions Nos. 25, 26, and 29; and
  - K. Records shall be kept in sufficient detail to allow emission rates of Hazardous Air Pollutants (HAPS) to be accurately determined from all emission points having the potential to emit HAPS. Using this recorded data, a report shall be produced for the emission of HAPS (in tons per year) over the previous 12 consecutive months. The required records shall be kept with examples of the method of data reduction including units, conversion factors, assumptions, and the basis of the assumptions.
39. Upon completion of the transformer replacement authorized December 6, 2013, the holder of this permit shall comply with the recordkeeping and reporting requirements of 40 CFR § 60.273a and 60.276a for EAF2. **(12/13)**

Dated: December 6, 2013

Emission Sources - Maximum Allowable Emission Rates

Permit Number 19933 and PSDTX1204

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (7)	
			lbs/hour	TPY (4)
BH-1A and BH-1B	Baghouse 1 Stacks A and B	Total PM (6)	8.07	35.36
		PM <sub>10</sub> (6)	8.07	35.36
	EAF1, Ladle Lancing, and EAF1 Auxiliary Burners	VOC	22.24	74.13
		NO <sub>x</sub>	35.06	116.42
		CO	427.68	1425.60
		SO <sub>2</sub>	31.36	104.54
		Cd	<0.01	0.02
		Cr	0.01	0.05
		Ni	<0.01	0.01
		Pb	0.14	0.62
		Mn	0.13	0.55
		Zn	1.65	7.23
BH-2A and BH-2B	Baghouse 2 Stacks A and B	Total PM (6)	14.15	61.96
		PM <sub>10</sub> (6)	14.15	61.96
	EAF2 and EAF2 Auxiliary Burners	VOC	22.24	74.13
		NO <sub>x</sub>	34.93	116.42
		CO	427.68	1425.60
		SO <sub>2</sub>	31.36	104.54
		Cd	0.01	0.03
		Cr	0.02	0.09

## Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (7)	
			lbs/hour	TPY (4)
		Ni	0.003	0.02
		Pb	0.25	1.09
		Mn	0.22	0.97
		Zn	2.89	12.67
BH-1A, BH-1B, BH-2A, and BH-2B	Baghouse 1 and 2 Cap for Both EPNs	VOC	-	74.13
		NO <sub>x</sub>	-	116.42
		CO	-	1425.60
		SO <sub>2</sub>	-	104.54
LADLANFUG	Ladle Lancing (5)	Total PM	0.0002	0.001
		PM <sub>10</sub>	0.0002	0.001
		VOC	<0.01	<0.01
		NO <sub>x</sub>	0.03	0.14
		CO	<0.01	<0.01
		SO <sub>2</sub>	<0.01	<0.01
LDLHTRFUG	4 Ladle Heaters (5)	Total PM	0.23	0.65
		PM <sub>10</sub>	0.06	0.16
		VOC	0.17	0.47
		NO <sub>x</sub>	3.04	8.59
		CO	2.55	7.21
		SO <sub>2</sub>	0.02	0.05
LIMESILO	Lime Silo Filter Stack	Total PM	0.51	1.72
		PM <sub>10</sub>	0.51	1.72

## Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (7)	
			lbs/hour	TPY (4)
BALLFUG	Ball Mill Building Fugitives (5)  1 Hardening Furnace, 1 Tempering Furnace, and Ball Mill Reheat Furnace	Total PM	0.36	1.28
		PM <sub>10</sub>	0.09	0.32
		VOC	0.26	0.92
		NO <sub>x</sub>	4.74	16.82
		CO	3.98	14.13
		SO <sub>2</sub>	0.03	0.10
EAFBLDGFUG	Meltshop/Caster Building Fugitives (5) EAF 1, EAF2, Caster and Tundish Heaters, and Miscellaneous Plant Heaters	Total PM	0.26	0.45
		PM <sub>10</sub>	0.23	0.38
		VOC	0.02	0.05
		NO <sub>x</sub>	2.54	8.58
		CO	0.28	0.76
		SO <sub>2</sub>	0.01	0.03
		Cd	<0.01	<0.01
		Cr	<0.01	<0.01
		Ni	<0.01	<0.01
		Pb	<0.01	0.02
		Mn	<0.01	0.01
		Zn	0.06	0.18
CASTORCH	Caster Torches	Total PM	0.02	0.09
		PM <sub>10</sub>	0.01	0.02
		VOC	0.02	0.07
		NO <sub>x</sub>	0.27	1.20
		CO	0.23	1.01

## Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (7)	
			lbs/hour	TPY (4)
		SO <sub>2</sub>	<0.01	<0.01
MILLFUG	Mill Reheat Furnace Fugitives (5)	Total PM	<0.01	0.04
		PM <sub>10</sub>	<0.01	0.01
		VOC	<0.01	0.03
		NO <sub>x</sub>	0.36	1.35
		CO	0.11	0.40
		SO <sub>2</sub>	<0.01	<0.01
MRFSTK	Mill Billet Reheat Stack  Billet Reheat Furnace	Total PM	0.96	3.62
		PM <sub>10</sub>	0.24	0.91
		VOC	0.69	2.62
		NO <sub>x</sub>	35.33	133.54
		CO	10.60	40.06
		SO <sub>2</sub>	0.08	0.29
SCRAPLOAD	Scrap Metal Loading and Handling Fugitives (5)	Total PM	0.84	2.82
		PM <sub>10</sub>	0.41	1.38
SLAG CAP	Total Slag Emissions CAP Slag South Disposal Area, Slag Landfill Disposal Area, and Slag North Disposal Area	PM	0.70	2.32
		PM <sub>10</sub>	0.35	1.16
		Pb	0.0007	0.0023
MELTSHOPCT	Melt Shop Cooling Tower	Total PM	0.63	2.76
		PM <sub>10</sub>	0.31	1.38

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (7)	
			lbs/hour	TPY (4)
ROLLMILLCT	Rolling Mill Cooling Tower	PM	0.88	3.90
		PM <sub>10</sub>	0.44	1.92
BALLMILLCT	Ball Mill Cooling Tower	Total PM	0.12	0.53
		PM <sub>10</sub>	0.08	0.37
ALL	All Sources	Any HAP	-	<10.00
		All HAPS	-	<25.00

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- NO<sub>x</sub> - total oxides of nitrogen
- SO<sub>2</sub> - sulfur dioxide
- PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented
- PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented
- PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide
- Cd - cadmium
- Cr - chromium
- Ni - nickel
- Pb - lead
- Mn - manganese
- Zn - zinc
- HAP - hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) Speciated metal/HAPS are included in the PM/PM<sub>10</sub> values.
- (7) Planned startup and shutdown emissions are included. Maintenance activities are not authorized by this permit and will need separate authorization unless the activity can meet conditions of 30 TAC 116.119.

Date: December 6, 2013